



PLANTING SPECIFICATION

General Guidance

All plant handling to be in accordance with the HTA 'Handling and establishing landscape plants' Part I, Part II and Part III (obtainable from the Horticultural Trades Association) and the CPSE publication: 'Plant Handling and all planting to conform to National Planting Specification Guidelines.

The individual setting-out of the plants on site shall be the responsibility of the contractor and should follow closely the locations shown on the detailed planting proposal drawings supplied by the landscape architect. Contractor to ensure that plants are equally spaced within individual planting groups.

Contractor to ensure that smaller plants are located to the front of plant species groups as shown on detailed planting plans.

Contractor shall maintain existing levels around the base of existing trees and shall undertake all planting works occurring within root protection areas (RPA) in accordance with BS5837:2012. Contractor shall not remove or relocate any tree protection fencing without prior consent of the client.

Contractor to check the locations of all underground services, existing and proposed, prior to the excavation of any tree pits or shrub beds and identify any potential conflicts to the client / landscape architect. All arisings shall be removed from site and the contractor shall at all times, keep the site free from rubbish and debris.

For the duration of the works the contractor shall keep the site free from injurious weeds as listed in the Weeds Act 1959.

All plants should be supplied at the same size and of the same species as specified in the planting schedules on the landscape proposals plan. Any proposed replacement species or deviation from the planting schedules should be highlighted to and agreed with the client prior to installation.

All plants shall be hard-ened-off at the Contractor's own nursery or at the source prior to planting out.

All field grown and rootballed trees must have been transplanted or underlaid in the nursery no less than 18 months prior to supply.

The Contractor shall carry out the work while soil and weather conditions are suitable. Planting is not to take place during periods of frost or strong winds.

The contractor is to ensure that adequate watering and weed control is provided at the time of planting.

Any topsoil retained on site in stockpiles for use in planting works is to be stored in accordance with the DEFRA publication: 'Code of practice for the sustainable use of soils on construction sites'

Do not use peat or peat based products.

Prior to planting, planting areas shall be cleared of grass and weed growth physically and/or chemically with a proprietary translocated herbicide and a period of time shall be allowed to elapse as recommended by the manufacturer before commencement of soil preparation for planting.

All plants are to be watered thoroughly before planting stage to ensure rootball is thoroughly soaked prior to final backfilling.

Tree Planting

Generally plant trees in pits with minimum dimensions of:-

1000 x 1000 x 700-800mm deep for trees in soft, planted areas including: grass/shrub areas and rear gardens.

Backfill the pits in layers as specified below (from bottom up):

Drainage layer

- 200mm layer of compacted inert free draining gravel or pea shingle, wrapped in geo-textile membrane
- 100mm layer of washed medium-course sand to act as blinding layer between geotextile and soil.

Topsoil layer

- 400-500mm layer of retained site-sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) depth dependent on size of rootball.

Depth of topsoil should only be as deep as the rootball of proposed tree to a max. depth of 400-500mm. Should the rootball be larger i.e. 800mm height, then the pit should be increased in depth to suit, but with the difference in depth from the 400-500mm topsoil layer and the drainage layer made up of quality imported free-draining subsoil to BS8601:2013 to avoid topsoil occurring at depths of greater than 500mm.

Likewise, for smaller trees i.e. feathered trees, with more limited rootballs/bare root, the depth of topsoil can be reduced to reflect the surrounding topsoil depths or to a max. topsoil depth of 350mm, with a further layer of site-sourced or imported subsoil (to BS8601:2013) below to create a total depth of growth medium of between 400-500mm i.e. 150-200mm layer of subsoil. Drainage layer should remain as above.

As stated above, the min. pit size for trees planted in newly created planting areas should be 1m x 1m, however where planting is occurring in clean, undisturbed ground, pits should be dug to approx. 200mm greater than the rootball to limit distribution of surrounding soil structure. For very large stock, pit dimensions should be increased accordingly.

Break up bottom of tree pit to a depth of 200mm and ensure ground is free-draining. Loosen edges of tree pit at time of planting by hand, using a fork to ensure good drainage. Pits should be excavated no greater than 48hrs prior to planting and dewatered as required.

Incorporate a soil conditioner/ameliorant in the form of peat-free tree and shrub compost or well rotted spent mushroom compost or 'Roommaster' by Greentech Ltd (01423 332100) into backfilled topsoil material at the rate of min. 40L per pit.

Incorporate soil improver 'Terracotem Arbor' by Greentech Ltd (01423 332100) at a rate of 1kg per pit, mixed thoroughly into backfilled topsoil.

Backfill topsoil mix in layers of 150mm, firming at each layer and loosening the pit sides to aid drainage. The surface level of the pit should be 50mm above the surrounding ground.

Trees shall be planted in the centre of the excavated pits.

Trees in soft planted areas to be dressed with a minimum 75mm mulch layer, composed of fine bark chips / cohesive soils). Particle size 15-50mm to a min. diameter of 1000-1200mm.

Semi-mature trees shall be secured by use of a proprietary underground guying system, incorporating guy mats to protect the upper surface of the rootball and secured to the base of the tree pit or by use of deadman anchors. Guying supports to be sized in line with the size of the tree as recommended by the manufacturers.

Extra-heavy and heavy standard trees shall be staked and supported with a low, double stake consisting of 2No. 75mm diameter x min. 2000mm length, rounded timber posts driven into the ground, 600mm above ground level and fixed to the tree by a proprietary rubber tree tie / horizontal cross support.

Standard trees shall be staked and supported with a low, single stake consisting of 1No. 75mm diameter x min. 2000mm length, rounded timber post driven into the ground at 45 degree angle to approx. 450mm above ground level and fixed to the tree by a proprietary rubber tree tie.

Trees shall be installed with proprietary flexible perforated irrigation/aeration pipe with integral cap. Pipe to be installed encircling equally around rootball to the full depth of planting pit, with the final cap section installed just above ground level and nailed securely in place to the adjacent timber stake.

All trees in grass areas to be protected by min. 450mm high (Rodent) x 38mm diam. proprietary biodegradable plastic spiral guards, by Green-tech Ltd. or equal and approved. Where trees have a basal trunk diameter greater than this, e.g. semi-mature, then two or more guards should be joined together using jointing tape and then secured in place.

Root Barrier Membranes

Where trees are proposed in close proximity to hard paved areas or proposed service runs, a root barrier membrane is to be installed as prescribed below.

For all proposed trees centred in a location within 3m of an adjacent hard standing/footpath or carriageway kerb line, a proprietary root barrier membrane will be installed to protect the hard standing and any underground services located beneath from future damage by tree roots.

Root barrier membrane(s) to be installed on the tree side along the back edge of the kerb / edging restraint to the adjacent hard standing and are to extend a minimum 3m in each direction from a point taken perpendicular from the tree trunk to the kerb/edging face.

Root barrier membranes are to extend to a depth as outlined below:-

- For trees adjacent to hard standings only (no underground services); install 'Recoat 600' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 300mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.
- For trees adjacent to hard standings incorporating underground services; install the following dependant on the depth of underground services:
 - For services 450mm deep
 - 'Recoat 600' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 600mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.
 - For services 800mm deep
 - 'Recoat 1000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 1000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For services deeper than 800mm

- 'Recoat 2000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 2000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For locations where a hard standing with or without underground services exists on both sides of the tree e.g. grass verge, then a root barrier is to be installed against both kerb / edging faces.

For trees located within hard surfaces themselves i.e. surrounded by hard paved surfaces, install 'Root Director' by GreenBlue Urban (01424 717797) or equal and approved, ref: RD1400; 1400mm x 450mm plastic root director with integral ribs.

Ornamental Shrub Planting

Plant shrubs and groundcover into pre-prepared planting beds consisting of topsoil to a depth of no greater than 400mm, overlying clean, free-draining subsoil. Topsoil to be either: existing retained site sourced topsoil (free from weeds) or imported topsoil imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary.

Subsoil layer to be fully broken-up to ensure adequate decompaction and alleviate free-drainage. For light and non-cohesive subsoils, when ground conditions are reasonably dry, loosen thoroughly to a depth of 300mm (450mm for stiff clay / cohesive soils). Remove all stones and debris greater than 50mm, including roots and tufts of grass. Top 50mm of subsoil to be reduced to a medium tilt suitable for final shaping using a grading blade.

Where applicable the use of a small tractor mounted single line ripper to decompact subsoil layer sufficiently.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost across the planting bed in a 50mm layer at a rate of 300g per m², and incorporate to a depth of 225mm.

Install a proprietary geo-textile weed suppressant membrane onto the surface of the pre-prepared shrub planting beds with minimum 300mm laps. Once planting bed is prepared, dig planting holes for shrubs to be a depth of 200mm and a width or 150mm greater than the source pot size, ensuring that pit walls are loosened to ensure good drainage.

Ensure planting appears random / natural and not formal in accordance with the planting proposal layouts as supplied by the Landscape Architect.

All shrub areas to be dressed with a minimum 75mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm, laid directly onto weed suppressant membrane.

The contractor shall take the necessary precautions to ensure all shrub areas are protected throughout the establishment period by temporary fencing.

Native Hedge Planting (incl. single species native hedges)

Plant hedges into pre-prepared planting trenches, 500-600mm wide for double rows. Planting strips to consist of topsoil to a depth of 350-400mm, mixed with soil conditioner as specified below. Topsoil to be either: existing retained site-sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost along planting trench in a 50mm layer at the rate of 300g per m², and incorporate to a depth of 225mm.

Install a proprietary weed suppressant membrane onto the surface of the pre-prepared trench, with minimum 300mm laps. Plant hedge plants into pre-prepared planting strips which are deep enough so as to be 200mm greater than the root depth of the supplied plant stock.

All hedge planting areas to be dressed with a minimum 75mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm, laid directly on weed suppressant membrane.

Where not planted against an proposed fence-line or wall, hedges to be supported by min. 1000 high timber post and wire fence, consisting of min. 75mm diameter x 2000mm long, rounded timber posts, driven in at 2000mm centres with 3No. galvanised wire supports evenly spaced along the vertical axis of the post. Corner posts and/or straining posts are to be additionally supported by 45° angled, 50mm diameter timber struts.

Amenity Turf Planting

Areas to be turfed are to be 'dug over' or rotavated to ensure decompaction of any existing substrate and then finely graded to bring to a uniform and even grade at the correct finished level, removing all minor hollows and ridges. Light rolling may be required to consolidate any loose substrate.

All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Turfed areas are to consist of min. 150mm topsoil; either existing retained site sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary, overlying min. 150mm layer of clean, free-draining subsoil. Subsoil should be prepared as per shrub specification, ensuring full decompaction and free-drainage.

Unless otherwise stated, finished levels of turfed areas to be 30mm above adjoining paving and kerbs.

Final preparation of the turfed areas shall be carried out as to create a fine tilt surface suitable for laying of turves.

Prepared areas to be watered thoroughly to a depth of 75mm and lawn establishment fertiliser should be applied at a rate of 40g/m², 48hours prior to turfing. Fertiliser to be raked into top 25mm of the surface.

- The area(s) are to be turfed between April and October with turf, as specified in the planting schedules (Appendix A).
- Turfes should be laid in a series of straight rows, with staggered joints. All joints are to be closely butted together. Timber planks should be used to spread the load of the installer during laying and areas are to be tampered down to ensure good contact between turves and the soil.
- All turves should be laid within 24hours of delivery.

The contractor shall ensure that all turfed areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Amenity Grass Seeding

Areas to be seeded are to be finely graded to bring to a uniform and even grade at the correct finished level and to remove all minor hollows and ridges. All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Seeded areas are to consist of min. 150mm topsoil; either existing retained site sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary, overlying min. 150mm layer of clean, free-draining subsoil. Subsoil should be prepared as per shrub specification, ensuring full decompaction and free-drainage.

Unless otherwise stated, finished levels of seeded areas to be 30mm above adjoining paving and kerbs; 150mm below the dpc of adjoining buildings.

Final preparation of the seeded areas shall be carried out as to create a fine tilt surface suitable for seeding.

For amenity grass areas only, a pre-seeding fertiliser shall be applied at a rate of 250g/kg approx. 7 days prior to seeding and raked into top surface e.g. GoRight Lawn Establishment fertiliser by Rowlen Ltd, slow-release granular fertiliser, 7-10-10 NPK, or equal and approved by Landscape Architect.

The area(s) is to be seeded between April and October with approved grass seed mix, as specified in the planting schedules at the specified rate. Following seeding, areas are to be hand raked and lightly rolled.

The contractor shall take the necessary precautions to ensure all grass areas are protected throughout the establishment period, with the use of chestnut pale fencing where appropriate.

The contractor shall ensure that all seeded and turfed areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Wildflower / Wet Meadow / Meadow Grass Seeding

Kill off any existing vegetation by spraying off with proprietary herbicide and allow a time to elapse as recommended by the manufacturer before commencing any cultivation works.

If time permits, a stale seed bed is to be established, by allowing the graded meadow area to colonise with weeds from the existing soil seed bank following initial cultivation / rotavation and an additional application of proprietary herbicide applied to remove any weed growth.

Areas to be seeded are to be finely graded to bring to a uniform and even grade at the correct finished level and to remove all minor hollows and ridges. All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Wildflower seeded areas are to consist of min. 150mm deep existing retained topsoil (free from weeds) subsoil mix (9:1:5) over existing site subsoil layer. No imported topsoil should be used in the formation of wildflower meadows. Where feasible/practicable, topsoil should be fully stripped and seeding conducted into pre-prepared subsoil layer, however subsoil analysis will be required first to determine the need for any soil enhancement or enrichment in lieu of the topsoil strip.

Final preparation of the seeded areas shall be carried out as to create a medium tilt surface suitable for seeding.

No pre-seeding fertiliser shall be applied.

Wildflower seeded is to be undertaken preferably in Spring (Early March to late June) or if not feasible in Autumn (Mid August to October). Where sowing rates are low and sowing is to be undertaken by hand broad-casting, the contractor should mix the seed evenly with a fine, dry sand to bulk up the sowing mixture. Seeding by this method should only be undertaken on calm days with no wind, after seeding, areas are to be hand raked and lightly rolled. Seed to be thoroughly mixed before seeding to ensure even distribution of different seed weights.

For sloped areas e.g. SuDS, consideration by the contractor should be given to the use of hydroseeding techniques to improve establishment.

The contractor shall take the necessary precautions to ensure all grass areas are protected throughout the establishment period, with the use of chestnut pale fencing where appropriate.

The contractor shall ensure that all seeded areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Submerged Aquatic Planting

Plants to be supplied in pre-prepared weighted bundles/bunches of min. 3-4 stems per bunch and installed during mid to late spring or early summer.

For submerged aquatics not suited to weighted bunches, plants should be potted up into 1 litre (11 x 11cm) aquatic baskets lined with hessian, backfilled with aquatic, loam-rich compost and topped with pea shingle. Care should be taken to ensure that baskets are secured in place on the base of the pond.

Emergent Aquatic Marginal / Reed Planting (to marginal shelves in wet ponds)

Areas to be planted with marginal aquatic and reeds should be planted in mid to late spring or early summer, when signs of plants growth can be established on planting stock.

A 'marginal shelf' should be created around the wet pond in areas to receive the reed / marginal and emergent planting, which should be approximate 15-20cm deep below the 'mean' water level. The shelf should be formed of on-site subsoil and be a relatively flat profile to support the aquatic planting.

Where sufficient cover exists over any pond liner or in areas of puddled clay, plants should be installed directly into the marginal shelf substrate. Elsewhere where substrate is too thin or where reed planting extents is to be controlled, plants to be supplied in plastic pots or similar and transferred to proprietary plastic mesh aquatic baskets; min. 35 x 35cm for larger plants and min. 11 x 11cm for smaller stock, before installation to avoid rapid colonisation of adjacent areas. Baskets should be supplied with a fine mesh to avoid soil loss or hessian lining, baskets for reeds should be of an open plastic mesh to allow maximum flow of water and air into the pot but limit the outward growth of expansive roots. Baskets should be filled with a 2cm layer of pea shingle or washed gravel, before potting-up of supplied plant stock into loam rich aquatic compost and topped with a further fine layer of pea shingle. Plants should then be set out onto marginal shelf to densities outlined in planting schedule; ensuring baskets are well secured or partially heeled into shelf substrate (max 100mm). NB:- Only one plant should be installed per basket.

When planting bare-rooted plants in summer, trim back the tops by half and trim the roots back to within 2.5cm of the crown. Aquatic planting baskets should be annually topped up with a small layer of pea shingle or washed gravel to ensure stability of the baskets.

All marginal aquatic plants should receive a single application of slow release organic fertiliser in early summer when water levels are low to allow the incorporation of the fertiliser into the upper compost layers of the aquatic baskets. Any pea shingle or gravel disturbed should be replaced.

Marginal Planting and Plugs (to damp areas and SuDS)

Where permanent water exists, a gentle sloping bank profile with no step to the water's edge should be installed at the edges of the pond to accommodate the planting of the marginal plants.

Plants and plugs should be removed from the supply containers and planted directly into the pond banks and basin floor. Planting pits should be a min. 200mm greater than the supply pot size in depth and width and should be backfilled with extracted material, incorporating a slow release fertiliser e.g. Enmag (or similar approved) at a rate of 5g per pit (not required for plugs).

Ensure planting appears random / natural and not formal, and if planting bare-rooted plants in summer, trim back the tops by half and trim the roots back to within 2.5cm of the crown.

Plant Sourcing

All plant and seed material will be UK sourced and grown and wherever feasible, sourced from local suppliers in close proximity to the Site.

All plant material to be sourced from reputable suppliers with all necessary biosecurity and phytosanitary procedures in accordance with DEFRA guidelines.

General Planting Maintenance

All soft landscape areas to be maintained to BS7370:4:1993.

Sufficient watering should be undertaken by the contractor to establish and maintain healthy plant growth.

The first cut / mow of all amenity grass seeded / turf areas should be undertaken when the established sward reaches 35-50mm in height down to a height of 25mm, after which all amenity grassed areas should be maintained at a nominal height of 25mm (March to October). All arisings are to be removed from site and composted.

The first cut / mow of all meadow and wet meadow (wildflower) areas is to be undertaken when the established sward reaches 50mm in height or weeds colonise to a height of 300mm (whichever is sooner), to a nominal height of 25-35mm.

For spring sown meadows/wet meadows, the second cut should take place about 8 weeks after sowing, after which establishing meadow should be cut monthly down to 100mm during the first growing season to control weed growth, after which all meadow grass areas should be cut twice annually (June and September), to a nominal height of 100mm, once any wildflowers have set seed.

For autumn sown meadows/wet meadows, the second cut should take place in April, after which establishing meadow should be cut monthly down to 100mm during the first growing season to control weed growth, after which all meadow grass areas should be cut twice annually (June and September), to a nominal height of 100mm, once any wildflowers have set seed.

All meadow arisings should be left lying for 48hrs before being removed from site and composted.

Meadow areas should be hand-weeded or spot weeded for any perennial weeds such as docks, nettles and ragwort.

All failed / defective plants identified within the first 5 years of installation should be replaced by the contractor at the soonest available planting season to ensure a continued coverage of growth. Replacement plants should be of the same species and specification of the failed specimens.

Bare areas and areas of dead grass which become apparent should be rectified by overseeding and/or turf re-installation at the soonest available planting season.

All amenity grassed areas and planting beds should receive an application of a proprietary slow release fertilizer twice yearly in the spring and the autumn.

All shrub planting and formal hedges shall be pruned at least twice per annum, removing dead or dying wood, to maintain a healthy, natural shape and promote good form.

Dead heading of herbaceous plants including flowering marginal aquatic plants, should be undertaken following flowering.

All planting areas should be kept tidy and free from weeds, trimmings, debris and litter. Weeds should be removed by hand unless where it is unfeasible, whereby weeds can be treated by the application of a suitable proprietary herbicide.

NB:- Herbicide usage to be limited to spray usage on calm days (no wind) and undertaken by suitably qualified operatives in accordance with current legislation.

Tree stakes, ties and guards should be checked annually for adjustment and/or replacement/removal as required.

LEGEND

APPLICATION BOUNDARY

EXISTING TREES / VEGETATION

Softworks

SEMI-MATURE TREE

EXTRA HEAVY STANDARD TREE

STANDARD TREE

HALF-STANDARD TREE

MULTI-STEM TREE

THICKET MIX - Already installed on-site

HEDGEROW PLANTING

ORNAMENTAL SHRUB / HERBACEOUS / GRASS PLANTING

SPECIMEN SHRUB PLANTING

AQUATIC PLANTING

BULB PLANTING

AMENITY GRASS SEEDING - 'X22 Low Maintenance' seed mix by Germinal Seeds Ltd or equal and approved. 50g / m², overseed rate: 20g / m².

AMENITY GRASS TURF - 'Medallion' turf by Rolawn or equal and approved.

GRASSLAND MEADOW MIX - 'WF66 Clay Soils Mix' by Germinal Seeds Ltd or equal and approved. 5g / m².

WET WILDFLOWER MEADOW MIX - 'WF7' - EM6F Wild Flower Mixture for Wetlands by Emorsgate Seeds Ltd or equal and approved. 5g / m².

WILDFLOWER MEADOW MIX - 'WF3' - EM1 Pond Edge Mixture by Emorsgate Seeds Ltd or equal and approved. 5g / m².

Hardworks

KNEERAIL FENCING - 400mm high timber kneerail, treated