

PLANTING SPECIFICATION

General Guidance

All plant handing to be in accordance with the HTA 'Handling and establishing landscape plants' Part I, Part II and Part III (obtained from the Horticultural Trades Association) and the CPIC 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 work 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's 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 nuisance 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 hardened-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 undercut 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 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 and physically and/or chemically with a suitable herbicide. Areas shall be 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 soil, 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 binding 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 BS8801:2013 to avoid topsoil occurring at depths of greater than 500mm.

Likewise, for smaller trees i.e. feathered trees, with more limited rootball/slab root, the depth of topsoil can be reduced to reflect the surrounding topsoil depths or to a max. topsoil depth of 300mm, with a further layer of site-sourced or imported subsoil (to BS8801:2013) 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 clear, undisturbed ground, pits should be dug to approx. 200mm greater than the rootball to limit disturbance 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 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 weed suppressant membrane onto the surface of the pre-prepared trench, 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.

Ornamental Hedge Planting (ind. single species native hedges)

Plant hedges into pre-prepared planting trenches, 500-600mm wide for double rows. Planting slots to consist of trench to a depth of 300-400mm, 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 across the 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 slots which are deep enough to be to 200mm greater than the root depth of the supplied plant stock.

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 staking posts are to be additionally supported by 45° angled, 50mm diameter timber strops.

Thicket Planting / Woodland Planting

Where existing vegetation is to be removed, clear any surface vegetation in proposed woodland and thicket areas, utilising proprietary herbicide where appropriate and install plants into bedded pre-prepared planting pits, generally 300 x 300 x 450mm deep or 200mm greater than the rootstock, whichever is greater, isolated with either existing retained site sourced topsoil (free from weeds) or imported topsoil (sandy loam). General Purpose grade to BS3882:2015 (or a combination of the two as necessary).

Where planting occurs into a retained sward, then planting pits shall be excavated locally for each plant, with the surface vegetation removed.

Incorporate a soil conditioner/ameliorant in the form of peat free tree and shrub compost or well-rotted spent mushroom compost into backfill material at the rate of 50g per pit, incorporating a slow release fertiliser e.g. Etnag (or similar approved) at a rate of 5g per pit.

Ensure planting conforms to planting matrix where appropriate and in all other areas sowing random / natural and not formal in accordance with the planting proposal layouts.

Trees shall be installed with proprietary flexible perforated irrigation/anti-rust pipe with integral cap. Pipe to be installed ensuring 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 joining 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 nearest 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 Trench 300 by Green-Utech Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 300mm, ribs facing tree, joints fixed with joining tape, install 100mm 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

- o Trench 600 by Green-Utech Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 600mm, ribs facing tree, joints fixed with joining tape, install 10mm above final surface level of soft landscaping.

For services 800mm deep

- o Trench 1000 by Green-Utech Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 1000mm, ribs facing tree, joints fixed with joining tape, install 10mm above final surface level of soft landscaping.

For services deeper than 800mm

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

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 (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 decomposition 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 loam suitable for final shaping using a grading blade.

Where applicable the use of a small tractor mounted single tire 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.

Ornamental Hedge Planting (ind. single species native hedges)

Plant hedges into pre-prepared planting trenches, 500-600mm wide for double rows. Planting slots to consist of trench to a depth of 300-400mm, 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 across the 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 slots which are deep enough to be to 200mm greater than the root depth of the supplied plant stock.

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 staking posts are to be additionally supported by 45° angled, 50mm diameter timber strops.

Thicket Planting / Woodland Planting

Where existing vegetation is to be removed, clear any surface vegetation in proposed woodland and thicket areas, utilising proprietary herbicide where appropriate and install plants into bedded pre-prepared planting pits, generally 300 x 300 x 450mm deep or 200mm greater than the rootstock, whichever is greater, isolated with either existing retained site sourced topsoil (free from weeds) or imported topsoil (sandy loam). General Purpose grade to BS3882:2015 (or a combination of the two as necessary).

Where planting occurs into a retained sward, then planting pits shall be excavated locally for each plant, with the surface vegetation removed.

Incorporate a soil conditioner/ameliorant in the form of peat free tree and shrub compost or well-rotted spent mushroom compost into backfill material at the rate of 50g per pit, incorporating a slow release fertiliser e.g. Etnag (or similar approved) at a rate of 5g per pit.

Ensure planting conforms to planting matrix where appropriate and in all other areas sowing random / natural and not formal in accordance with the planting proposal layouts.

Plant Protection

Where rabbits are a known issue, all woodland and thicket areas are to be fully enclosed by min. 900mm high rabbit proof fencing, supplied as min. 19 Gauge (1.2mm) galvanised mesh with max. 31mm openings, nailed with galvanised 20mm staples to 50-75mm diameter treated timber stakes at 1.5m centres, incorporating 3No. horizontal galvanised straining wires. Mesh fence to be heeled into ground 150mm below ground level. Straining posts of 100mm diam. timber should be installed every 50m or at every turn of direction 90 degrees or greater.

If additional deer protection fencing is required, all woodland and thicket areas are to be fully enclosed by min. 1.8m proprietary plastic mesh fencing (50mm x 45mm gauge) secured to min. 100mm round, treated softwood posts, driven min. 750mm below ground level at 3.5m centres. Mesh fence to be heeled into ground 150mm below ground level. NB: in areas where rabbits are also a known problem, an additional 300mm high section of min. 19 Gauge galvanised mesh (chicken wire) with max. 31mm openings to be fixed to the lower portion of the deer fencing and attached using proprietary plastic cable ties.

Any standard trees in the woodland/thicket areas to be protected by min. 450mm high x 38mm diam. proprietary biodegradable plastic spiral guards, by Green-tech Ltd. or equal and approved.

All small / feathered trees within woodland/thicket areas to be protected by biodegradable Nature Tubes Tree Shelter by Green-tech Ltd. or equal and approved, and secured in place with min. 25mm square treated softwood timber stake and fixed with plastic cable ties. NB: Should not be faster deer inside in the locality the tree guards/shelters should be increased in height to 1.8m.

Any coniferous trees and/or beech transplants (Fagus sylvatica) within woodland/thicket areas must only be protected by open mesh tree guards.

All bushy thicket shrubs to be protected by min. 750mm high x 200mm diam. proprietary biodegradable plastic shrub shelters / spiral guards, by Green-tech Ltd. or equal and approved, and secured in place with treated softwood timber stake and plastic cable ties.

All single stem thicket transplants to be protected by min. 600mm high x 50mm proprietary biodegradable plastic spiral guards, by Green-tech Ltd. or equal and approved, secured with min. 12-14b x 900mm long bamboo cane. Cane to be fully installed into the ground by 300mm.

All woodland and thicket plants to be installed with a min. 500mm square, proprietary Treated Biodegradable Wood Mat mulch mat, by Green-tech Ltd. or equal and approved, securely pegged in place and weighted down with bark mulch.

Where woodland / thicket areas are created from freshly cultivated ground i.e. not into the existing sward, then the planting area should be over-seeded with a proprietary medium grass mix (A4* mix by Geminal Seeds Ltd) at a rate of 35g/m² between planting stations.

Amenity Turf Planting

Areas to be turfed are to be 'dig over' or rotovated to ensure decomposition 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 rilling 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 decomposition 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 10th 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 areas(s) are to be turfed between April and October with turf, as specified in the planting schedules (Appendix A).
- Turves 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 tamped 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 decomposition 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 10th surface suitable for seeding.

For amenity grass areas only, a pre-seeding fertiliser shall be applied at a rate of 250g/ha approx. 7 days prior to seeding and raked into top surface e.g. GroRight Lawn Establishment fertiliser by Rotolaw 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 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 / rotation and an additional application of proprietary herbicide applied to remove any weed growth(s).

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 (50/50) 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 10th 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 broadcast-seeding, 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.

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 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 25-30mm.

For spring sown meadow/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 meadow/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 swept 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 annual 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 fertiliser 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 hedging 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.

