

Appendix 4

Planting implementation

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Q31 PLANTING

IMPLEMENTATION

- 1 Planting to be carried out at the earliest opportunity after starting work on site. Planting is generally to the perimeter of the site and should be carried out between October and March.
- 2 The sequence of work on site will be,
 1. Digging and removal of weeds Balsam from planting areas.
 2. Protection to retained trees
 3. Forming access drives and site services
 4. Site strip
 5. Supplementing topsoil as necessary from site strip.
 6. Apply mulch
 7. Planting (October to March)
 8. Protective fencing adjacent to construction works

GENERAL INFORMATION/REQUIREMENTS

- 110 **TOPSOIL:** At the time of starting the subcontract work, the areas to be planted will include 300mm of topsoil, supplemented as necessary with soil removed from the building footprint. Small planting beds located in general landscape areas may be excavated separately and at a later date than the general topsoiling operations.
- 120 **CLIMATIC CONDITIONS:** Carry out the work while soil and weather conditions are suitable for the relevant operations. Transplant only during the following periods:
 - Deciduous trees and shrubs: Late October to late March.
 - Conifers and evergreens: Early or late Spring.
 - Herbaceous plants: September to October or March to April.
 - Containerised, pot grown and root balled plants: At any time if ground and weather conditions are favourable.
- 130 **MACHINES AND TOOLS:** Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.
- 160 **NOTICE TO Architect:** Make advance arrangements with architect to give him the opportunity of being present during:
 - Setting out
 - Application of fertilizer
 - Planting of shrubs
 - Planting of trees into previously dug pits
 - Each site visit during maintenance period.
- 170 **SETTING OUT:** Clearly mark boundaries of planting areas and location of trees and obtain approval before starting work.
- 180 **CHEMICALS GENERALLY:**

- Use only where specified or approved, and then only products on the current list of the Agricultural Chemicals Approval Scheme.
- Where work is near water, drainage ditches or land drains, comply with the Ministry of Agriculture, Fisheries and Food 'Code of Practice for the use of herbicides on weeds in water courses and lakes'.
- Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.

- 200 Trees/plants generally:
-Obtain from approved source(s) with soil and climatic conditions similar to those prevailing on site.
-Adequately and carefully pack and protect against mechanical damage, extremes of temperature and drying out.
-When requested by CA provide a certificate that plants comply with this specification.

- 230 STORAGE: Plants which are not to be planted on day of delivery to site to be stored as follows or by other approved methods:
-Root balled plants: Place close together and cover root balls with sand, moist peat or wet straw.
-Bare rooted plants: Heel in prepared trenches, cover with soil and water thoroughly.

PLANTING TREES

- 310 CONIFERS/EVERGREENS: Dip in or thoroughly spray with antidesiccant before delivering to site. Apply again soon after planting. Do not apply in rainy or frosty weather. Ensure full coverage of underside of foliage.

- 320 SEMIMATURE TREES:
-To BS 4043, sizes as scheduled.
-Transplant to BS 4043 unless specified otherwise in this clause.
-Pits: Not less than 2100 mm diameter x 900 mm depth. Where necessary, increase these dimensions to ensure that pits are at least 250 mm deeper and 600 mm wider than root ball. Break up bottom of pit to a depth of 250 mm.
-Backfilling material: As clause 360.
-Protection: Wrap trunks and lower branches with hessian strips, straw ropes or treated crepe paper, and leave on for at least two summers.
-Support: Overhead guying to BS 4043.
-Support: Securing underground to BS 4043.

- 330 ADVANCED NURSERY STOCK TREES:
-To BS 5236, size categories as scheduled.
-Transplant to BS 5236 unless otherwise specified in this clause.
-Pits: Not less than 1500 mm diameter x 900 mm depth. Where necessary increase these dimensions to ensure that pits are at least 250 mm deeper and 500 mm wider than root system when fully spread. Break up bottom of pits to a depth of 200 mm.
-Backfilling material: As clause 360.
-Support: Vertical staking to BS 5236.
-Support: Oblique staking to BS 5236.
-Support: Guying as follows:
Use three guys of galvanised wire passed through crotch of lowest branch and stem.
Protect tree with rubber hose sleeves threaded on to wire.
Secure wire at each end with two U-bolts.
Position stakes equidistant from tree, from each other and to give an angle of approximately 60 degrees between wire and ground.
Incorporate a galvanised turnbuckle in each guy and adjust until wires are just taut.

- 350 NURSERY STOCK TREES:

-To BS 3936:Part 1, size designation as scheduled.

-Pits: Not less than the following:

Diameter Depth

Bush, whip and small

feathered trees 600 mm 450 mm

Standard and large

feathered trees 900 mm 600 mm

Tall standard trees 1200 mm 750 mm

Where necessary increase these dimensions to ensure that pits are at least 75 mm deeper than root system and wide enough to accommodate roots when fully spread.

Break up bottom of pit to a depth of 150 mm.

-Backfilling material: As clause 360.

-Orientation: Before lifting, mark north side of trees to ensure that orientation is the same when replanted.

-Cut back any broken or damaged roots to sound growth. Treat cut ends over 25 mm diameter with fungicidal sealant.

-Plant trees upright, unless otherwise instructed, in centre of pit and at original soil depth.

-Bare root trees: Place backfilling material in 150-250 mm layers, shaking tree to ensure close contact with roots and elimination of air pockets. Firm the soil as backfilling proceeds taking care not to damage any roots. Heel in firmly around root collar.

-Root balled trees: Firm backfilling material around root ball in 150 mm layers taking care not to disturb roots.

-Support:

Single stake bare root trees as clause 370.

Double stake root balled trees as clause 380.

Stakes: 75 mm thick (100 mm for trees over 3 m high) softwood, pressure impregnated to BS 4072, straight, free of projections and pointed at one end.

-Water trees thoroughly immediately after backfilling.

-After watering spread a 50 mm layer of peat or equivalent mulch over the whole area of the tree pit.

360 BACKFILLING MATERIAL: A previously prepared thorough mixture of:

-85 % by volume topsoil excavated from the pit and additional topsoil as required.

-15 % by volume loosened peat to BS 4156 or other approved well rotted organic material.

-0 % by volume coarse grained washed river sand.

-600 g/cu m bonemeal of medium fine texture, containing not less than 20% soluble potash and 3-5% nitrogen.

370 SINGLE STAKING BARE ROOT NURSERY STOCK:

-Position stake close to tree on windward side and drive vertically at least 150 mm into bottom of pit and cut off just below first crotch of tree. Consolidate material around stake during backfilling.

-Secure tree firmly but not rigidly to stake with at least two ties of approved type. Use three ties if necessary to prevent tree touching stake. Position top tie within 25 mm of top of stake and lower tie approximately halfway down.

380 DOUBLE STAKING ROOT BALLED NURSERY STOCK:

-Drive stakes vertically at least 150 mm into bottom of pit on either side of tree position and cut off just below first crotch of tree. Consolidate material round stakes during backfilling.

-Firmly fix cross bar on windward side of tree and as close as possible to stem.

-Secure tree firmly but not rigidly to cross bar with tie of approved type.

390 DAMAGED STAKES: Replace any stakes which are split. Remove any snags and burrs which may cause chafing of trees.

400 TREE GUARDS: Where specified securely fix to stakes with galvanized staples at 300 mm centres. Use two guards opened out on double staked trees.

PREPARATION OF PLANTING BEDS

410 HERBICIDE:

-A type recommended for the purpose in the current list of the Agricultural Chemicals Approval Scheme.

Manufacturer and reference: Glyphosphate based eg. round up

-Apply to perennial weeds and allow period of time to elapse as recommended by manufacturer before cultivation.

430 GENERAL FERTILIZER:

-Compound fertilizer: Ficote 70

-Manufacture: Enmag pr similar or approved

-Apply evenly over all planting areas at 100g /sq.m immediately before cultivations

450 COMPOST: One of the following spread over all planting areas at 1 cu m of material per 15 sq m prior to cultivation:

-Sewage sludge: Dewatered solid sludge cake with a maximum moisture content of 10% and containing not less than 6% nitrogen, 3% phosphate, 5% potash.

-Manure: Well rotted horse or farmyard dung but not poultry or pig manure.

-Mushroom compost: Spent mushroom beds containing only well rotted manure, peat, chalk and residual mushroom growth.

-Leaf mould: Well rotted broad leaves from deciduous trees but not ash, poplar or sycamore leaves.

-Other well rotted organic material subject to approval.

460 CULTIVATION:

-Break up any compacted topsoil to full depth.

-Within a few days before planting cultivate top 300 mm of all planting beds by rotavating and/or double digging. Leave surface regular and even.

-Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.

PLANTING SHRUBS/HERBACEOUS PLANTS/BULBS

510 CONIFERS/EVERGREENS: Dip in antidesiccant before delivering to site. Spray with antidesiccant soon after planting. Do not apply in rainy or frosty weather.

520 PLANTING GENERALLY:

-Before planting remove any nonperishable containers and carefully prune any badly damaged roots.

-Plant upright or well balanced with best side to front. Carefully return excavated topsoil, packing around evenly spread roots or root ball and heel well in.

-Water plants thoroughly immediately after planting, using a fine rose.

-Immediately after planting shrubs carefully cut back any damaged, dead or diseased branches and remove any weak, thin or malformed growth. Where and to the extent appropriate for the species cut back to encourage growth.

-After planting fork and/or rake soil to a fine tilth with approved cambers and no hollows.

530 SHRUBS:

-To BS 3936:Part 1.

-Planting holes for climbers to be 150 mm wider than root spread and 400 mm deep.

-Finished level to be at original soil mark on shrubs and 30 mm above surrounding level to allow for settlement.

580 IDENTIFICATION OF PLANTS: Attach a plastic label, clearly marked with species and variety, to each tree/shrub/plant.

PROTECTING/MAINTAINING/MAKING GOOD DEFECTS

610 PROTECTIVE FENCING: Protect newly planted areas.

620 WATERING During establishment of planting ensure that sufficient water is applied to maintain healthy growth.

630 CLEANLINESS: Remove soil from all hard surfaces and grassed areas and leave the works in a clean tidy condition at Practical Completion.

640 FAILURES OF PLANTING Any trees/shrubs/plants which are dead, dying or otherwise defective at the end of the relevant period(s) stated in the Contract will be regarded as defects due to materials or workmanship not in accordance with the Contract. They must be replaced by approved equivalent trees/shrubs/ plants at the next suitable planting season unless otherwise instructed.

641 FAILURES OF PLANTING: Post completion maintenance of the planting is to be carried out by the Landscape Contractor as specified in this section. Any trees/shrubs/plants which are dead, dying or otherwise defective at the end of 12 month must be replaced by approved equivalent trees/shrubs/plants at the next suitable planting season unless otherwise instructed..

650 PLANTING MAINTENANCE: carry out maintenance of the planted areas as follows:
-Make visits at approximately 6 monthly intervals during the growing season and as necessary to fulfill the requirements of this specification.

-Once during the Period, in March or April, evenly spread 15:15:15 N:P:K Straight Agricultural or slow release type fertilizer:

70 g per feathered, standard or heavier tree

40 g per whip or shrub.

-Prune plants at appropriate time to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape. Dress cut ends exceeding 25 mm diameter with fungicidal sealant.

-Regularly check condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust ties if necessary to prevent rubbing of bark. Cut back any damaged bark and treat wound with fungicidal sealant.

-Insert number of waterings. Ensure that sufficient water is applied to maintain healthy growth.