

Tree & Hedgerow Planting Specification

D20 Excavating and Filling

To be read with Preliminaries/General conditions

CLEARANCE / EXCAVATING

164 TREE ROOTS

- Protected area: Do not cut roots within precautionary protection area.
 - Size of area: Branch spread of the tree.
- Excavation in protected area:
 - Method: By hand.
 - Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
- Outside protected area: Give notice of roots exceeding 25mm and do not cut without approval.
- Cutting:
 - Make clean smooth cuts with no ragged edges.
 - Pare cut surfaces smooth with a sharp knife.
 - Treatment of cut roots: Not required.
- Back fill: As dug material, enriched with amelioration as section Q31.

168 SITE CLEARANCE

- Timing: Before topsoil stripping, if any.
- General: Clear site rubbish, debris and vegetation. Do not compact topsoil.
- Treatment: Has already been carried out.

170 REMOVING SMALL TREES, SHRUBS, HEDGES AND ROOTS

- Identification: Clearly mark trees to be removed.
- Small trees, shrubs and hedges: Cut down.
- Roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Safety: Comply with HSE / Arboriculture and Forestry Advisory Group safety leaflets.

175 FELLING LARGE TREES

- Definition: Girth over 600 mm.
- Identification: Clearly mark trees to be removed.
- Safety: Comply with HSE/ Arboriculture and Forestry Advisory Group safety leaflets.
- Felling: As close to the ground as possible.
- Stumps: Remove mechanically to a minimum depth of 300 mm below ground level.
- Work near retained trees: Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.

180 CHIPPING AND SHREDDING

- General: Permitted, remove arisings from site.

221 TREATING TOPSOIL

- Treatment: Apply a suitable translocated non-residual herbicide.
- Timing: Not less than two weeks before excavating topsoil.

225 HANDLING TOPSOIL

- Standard: To BS 3882.
- Aggressive weeds:
 - Species: Included in the Weeds Act, section 2 or the appropriate Wildlife and Countryside Act for the relevant jurisdiction.
 - Give notice: Obtain instructions before moving topsoil.
- Contamination: Do not mix topsoil with:
 - Subsoil, stone, hardcore, rubbish or material from demolition work.
 - Other soil or material containing aggressive weeds, sharps, plastics and non-soil forming materials and notifiable animal or plant diseases.
 - Oil, fuel, cement or other substances harmful to plant growth.
 - Other classifications of topsoil.
- Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.

Q28 Topsoil, Growing Media and Ameliorants

To be read with Preliminaries/General conditions

SYSTEM OUTLINE

115 SOIL SYSTEM FOR GRASS SWARDS FOR ALL GRASSED AREAS

- Composition:
 - Soil: Excavated material and Imported topsoil to BS 3882 (Naturally occurring).
 - Ameliorants: None.
 - Accessories: None.

300 PREPARATION MATERIALS GENERALLY

- Purity: Free of pests and disease.
- Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
- Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - Corrosive, explosive or flammable.
 - Hazardous to human or animal life.
 - Detrimental to healthy plant growth.
- Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
- Objectionable odour: None.
- Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

315 IMPORTED TOPSOIL TO BS 3882 FOR GRASS SEEDING

- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- Standard: To BS 3882.
- Classification: Premium Grade. Naturally Occurring.
 - Grade: Within the parameters of 'sandy loam' textural class.
- Source: Submit proposals.
 - Product reference: Submit proposals.

EXECUTION

610 TOPSOIL ANALYSIS

- Soil to be analysed: Imported topsoil.
- Soil analyst: Submit proposals.
- Samples: Collect in accordance with BS 3882.
- Submit:
 - Declaration of analysis: including information detailing each of the relevant parameters given in BS 3882, clause 6 and table 2. Ensure that the soil is tested for residential without plant uptake.
 - Report detailing soil analyst's recommendations.

620 IMPORTING TOPSOIL

- Give notice: Before stripping topsoil for transfer to site.
 - Notice period: 2 days.

625 SAMPLE LOADS FOR IMPORTED TOPSOIL

- Deliver to site a sample load: of not less than 5 m³.
- Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
 - Notice period: 2 days.

630 DOCUMENTATION FOR IMPORTED TOPSOIL For Grass Seeding

- Timing: Submit at handover.
- Contents:
 - Full description of all soil components.
 - Record of source for all soil components.
 - Record drawings showing the location and depth of all soils by type and grade.
 - Declaration of analysis: in accordance with BS 3882, Annex E.
- Number of copies: Electronic.

650 NOTICE

- Give notice before:
 - Setting out.
 - Spreading topsoil.
 - Applying herbicide.
 - Applying fertilizer.
 - Visiting site during maintenance period.
- Period of notice: Two working days.

655 MECHANICAL TOOLS

- Restrictions: Do not use within 100 mm of tree and plant stems.

660 GRADING SUBSOIL

- General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
- Loosening:
 - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm.
 - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm.
 - Rock and chalk subgrades: Lightly scarify to promote free drainage.
- Areas of thicker topsoil: Excavate locally.
- Avoid over compaction.

665 SUBSOIL SURFACE PREPARATION

- General: Excavate and/ or place fill to required profiles and levels, as section D20.
- Loosening:
 - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm.
 - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm.
 - Rock and chalk subgrades: Lightly scarify to promote free drainage.
- Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
- Remove from site: Arisings, contaminants and debris and Builders rubble.

670 INSPECTING FORMATIONS

- Give notice: Before spreading topsoil for grass areas.
- Notice period: 2 working days.

680 SURPLUS TOPSOIL TO BE RETAINED

- Generally: Spread and level on site:
 - Locations: Any areas where topsoil is required for new planting or grass seeding.

690 TOPSOIL STORAGE HEAPS

- Location: as directed by CA.
- Height (maximum): 2.0 m.
- Width (maximum): 3.0 m.
 - Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
- Protection:
 - Do not place any other material on top of storage heaps.
 - Do not allow construction plant to pass over storage heaps.Prevent compaction and contamination, by fencing and covering as appropriate.

700 GRADING OF TOPSOIL

- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
 - Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Give notice: If required levels cannot be achieved by movement of existing soil.

705 HANLING TOPSOIL

- Aggressive weeds: Give notice and obtain instructions before moving topsoil.
- Plant: Select and use plant to minimize disturbance, trafficking and compaction.
- Contamination: Do not mix topsoil with:
 - Subsoil, stone, hardcore, rubbish or material from demolition work.
 - Other grades of topsoil.
- Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
- Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit less 3%, to BS 1377-2.

710 SPREADING TOPSOIL

- Temporary roads/ surfacing: Remove before spreading topsoil.
- Layers:
 - Depth (maximum): 150 mm.
 - Gently firm each layer before spreading the next.
- Depths after firming and settlement (minimum): 100 mm.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715 LOOSE TIPPING OF TOPSOIL

- General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

718 FINAL CULTIVATION FOR GRASS SEEDING

- Compacted topsoil: Break up to full depth.
- Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
- Depth: 150 mm.
- Particle size (maximum): 10 mm.
- Timing: After grading and fertilizing, and within a few days before seeding.
- Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels: 50mm above adjoining lawns.
- Undesirable material brought to the surface:
 - Remove visible weeds.Remove roots and large stones with any dimension exceeding 50 mm.

720 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- Above adjoining paving or kerbs: 25 mm.
- Below dpc of adjoining buildings: Not less than N/A.
- Planting beds: Higher than adjoining grass areas by 25 mm.
- Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
- Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
- Adjoining soil areas: Marry in.
- Thickness of turf or mulch: Included.

Q30 Seeding / Turfing

To be read with Preliminaries/General conditions

GENERAL INFORMATION / REQUIREMENTS**115 SEEDED AND TURFED AREAS**

- Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
- Appearance: A closely knit, continuous ground cover of even density, height and colour.

120 CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable.

146 WATERING

- Quantity: Wet full depth of topsoil.
- Application: Even and without displacing seed, seedlings or soil.
- Frequency: In the event of insufficient rainfall within 24-48 hours after each application of fertiliser and at other times as instructed by the CA.

150 WATER RESTRICTIONS

- Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding / turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

160 NOTICE

- Give notice before:
 - Setting out.
 - Applying herbicide.
 - Applying fertilizer.
 - Preparing seed bed.
 - Seeding or turfing.
 - Visiting site during maintenance period.
- Period of notice: 2 working days.

PREPARATION**210 HERBICIDE FOR NEW GRASSED AREAS**

- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation.

250 CULTIVATION

- Compacted topsoil: Break up to full depth.
- Soil ameliorant/ Conditioner/ Fertiliser: Fully incorporate into topsoil to a depth of 150mm.
- Tilth: Reduce top 100 mm of topsoil to a tilth suitable for blade grading, particle size 10mm (maximum).
- Material brought to the surface: Remove stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and debris.

260 GRADING

- Topsoil Condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage. Remove minor hollows and ridges.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150mm.
- Give notice: If required levels cannot be achieved by movement of existing soil.

SEEDING**311 GRASS SEED FOR ALL OTHER GRASSED AREAS**

- Supplier: British Seed Houses (Tel: 01522 868 714) or equivalent approved.
 - Mixture reference: A24 Wear and Tear.
- Application rate: 35 g/m².

319 QUALITY OF SEED FOR ALL GRASSED AREAS

- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties.
 - Standard: EC purity and germination regulations.
 - Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- Samples of mixtures: Submit when requested.

330 SOWING

- General: Establish good seed contact with the root zone.
- Method: Manually broadcast, raked and rolled.
 - Distribution: 2 equal sowings at right angles to each other and diagonally to main axis.

335 GRASS SOWING SEASON

- Grass seed generally: April to June or August to October.

PROTECTING / CUTTING**530 FIRST CUT OF GRASSED AREAS**

- Timing: When grass is reasonably dry.
 - Height of initial growth: 40-75 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 40 mm.
- Mower type: Rotary.
- Arisings: Remove from site.

535 SECOND CUT OF GRASSED AREAS

- Timing: When grass is reasonably dry.
 - Height of initial growth: 40-75 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 40 mm.
- Mower type: Rotary.
- Arisings: Remove from site.

590 CLEANLINESS

- Soil and arisings: Remove from hard surfaces.
- General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.

MAINTENANCE**610 FAILURES OF SEEDING**

- Duration: Carry out the following operations from completion of seeding/ turfing until: practical completion.
- Defective materials or workmanship: Areas that have failed to thrive.
 - Exclusions: Theft or malicious damage.
- Method of making good: Recultivation and reseeded/ returfing.
- Timing of making good: Submit proposals.

620 MAINTAINING GRASSED AREAS

- Duration: Carry out the following operations from completion of seeding/ turfing until: practical completion.
- Maximum height of growth at any time: 50 mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 35 mm.
 - Arisings: Remove.
- Trimming: All edges.
 - Arisings: Remove.
- Weed control: Substantially free of broad leaved weeds.
 - Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
 - Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: As clause 146.

Q31 External Planting

To be read with Preliminaries/General conditions

GENERAL INFORMATION / REQUIREMENTS

112 SITE CLEARANCE GENERALLY

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 50 mm.
- Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- Vegetation: Clear scrub to ground level by flail mowing and remove arisings; retain and protect trees indicated on drawings.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Additional requirements: n/a.

118 SOIL CONDITIONS

- Soil for cultivating and planting: Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
- Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

120 CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable.
 - Strong winds: Do not plant.

125 TIMES OF YEAR FOR PLANTING

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/ October or April/ May.
- Herbaceous plants (including marginal): September/ October or March/ April.
- Container grown plants: At any time if ground and weather conditions are favourable.
 - Watering and weed control: Provide as necessary.
- Dried bulbs, corms and tubers: September/ October.
- Colchicum (crocus): July/ August.
- Green bulbs: After flowering in spring.
- Wildflower plugs: Late August to mid November or March/ April.
- Aquatic plants: May/ June or September/ October.

130 MECHANICAL TOOLS

- Restrictions: Do not use within 100 mm of tree and plant stems.

145 WATERING

- Quantity: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As necessary to ensure establishment and continued thriving of planting.

150 WATER RESTRICTIONS

- General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

160 NOTICE

- Give notice before:
 - Setting out.
 - Applying herbicide.
 - Applying fertilizer.
 - Delivery of plants/ trees.
 - Planting shrubs.
 - Planting trees into previously dug pits.
 - Watering.
 - Visiting site during maintenance period.
- Period of notice: Two working days.

170 SOIL REQUIREMENTS

- Type:
 - Tree pits, shrub pits and other backfilling: Plant pit backfilling soil system, as section Q31. 586.
 - External container planting: N/A.
 - Mulch applied after planting: as section Q31.485.

200 PLANTS / TREES – GENERAL

- Condition: Materially undamaged, sturdy, healthy and vigorous.
- Appearance: Of good shape and without elongated shoots.
- Hardiness: Grown in a suitable environment and hardened off.
- Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants: Bottom worked.
- Root system and condition: Balanced with branch system.
 - Standard: The National Plant Specification.
- Species: True to name.
- Origin/ Provenance: British grown.
Definition: Origin and Provenance have the meaning given in the National Plant Specification.

215 PLANTS / TREES – SPECIFICATION CRITERIA

- Name, forms, dimensions, provenance and other criteria: As scheduled and defined in the National Plant Specification.

216 PLANTS / TREES – SPECIFICATION CRITERIA

- Name, forms, dimensions and other criteria: To the relevant part of BS 3936.

217 SEMI-MATURE TREES TO BS 4043 (SIZES AND CRITERIA AS SCHEDULED)

- Supplier: Approved Nursery

235 CONTAINER GROWN PLANTS / TREES

- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
- Plants: Centred in containers, firmed and well watered.
- Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
- Hardiness: Grown in the open for at least two months before being supplied.
- Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

246 LABELLING AND INFORMATION

- Standard: To BS 3936.

260 PLANT / TREE SUBSTITUTION

- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering:
Submit alternatives, stating:
 - Price.
 - Difference from specified plants/ trees.
- Approval: Obtain before making any substitution.

265 PLANT HANDLING, STORAGE TRANSPORT AND PLANTING

- Standard: To CPSE 'Handling and establishing landscape plants'.
- Frost: Protect plants from frost.
- Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Black polyethylene bags.
- Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
- Planting: Upright or well balanced with best side to front.

280 TREATMENT OF TREE WOUNDS

- Cutting: Keep wounds as small as possible.
 - Cut cleanly back to sound wood using sharp, clean tools.
 - Leave branch collars. Do not cut flush with stem or trunk.
 - Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

285 PROTECTION OF EXISTING GRASS

- General: Protect areas affected by planting operations using boards/ tarpaulins.
 - Cut cleanly back to sound wood using sharp, clean tools.
 - Leave branch collars. Do not cut flush with stem or trunk.
 - Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

290 SURPLUS MATERIAL

- Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

PLANTING TREES**505 TREE PITS**

- Sizes: 1200 mm x 1200 mm x 750 mm deep.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 200 mm.
 - Treatment: Soil ameliorant worked into pit bottoms.
- Pit sides: Scarify.
- Backfilling material: As clause Q31.586.
- Accessories: Plastic irrigation pipe, 80 mm diameter, in a circle around the centre of the rootball, with a T-piece connector to a vertical pipe with end cap.

510 TREE PIT ROOT BARRIERS

- Locations: To all tree pits adjacent to paved areas.
- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Thickness: 1.0 mm.
- Barrier depth: 1000 mm.
- Foil liner: Not required .
- Top of root barrier in relation to finished topsoil level: 10 mm above ground level.
- Installation: With sides vertical. Remove all sharp objects adjacent to barrier.

512 TREE PIT IRRIGATION AND VENTILATION ACCESSORIES

- Locations: To all tree pits.
- Manufacturer: Submit proposals.
 - Product reference: Submit proposals.
- Type: Plastic irrigation pipe, with a T-piece connector to a vertical pipe.
- Pipe diameter: 60 mm.
- Ring diameter: in a circle around the centre of the rootball, say 900mm.
- Inlet: Black plastics, with cap.
- Installation:
 - Pipe: Lay in loop above root ball with slight fall away from inlet pipe. Trim length to ensure a close fit in the tree pit. Connect both ends of pipe securely into plastics tee junction on inlet.
 - Top cap of inlet: Protruding slightly above finished surround level.
- Backfill material: Carefully compact in layers.

525 SEMIMATURE TREES

- Standard: Prepare roots and transplant to BS 4043.
- Backfilling material: As clause 585.
- Support:
- Protection:

535 STAKING GENERALLY

- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - Preservative treatment: To provide a 20-year service life.
- Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- Stake size (minimum): 75 mm diameter.

546 SINGLE VERTICAL STAKING FORFEATHERED

- Staking:
 - Position: Close to tree position on windward side.
 - Driving: Vertically at least 300 mm into bottom of pit before planting.
 - Backfilling: Consolidate material around stake.
 - Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
- Height of stakes: 600mm.
- Ties: Adjustable.
 - Number of ties: One.
- Tying: Secure tree firmly but not rigidly to stake with ties. Prevent tree from touching stake using spacer blocks or cushions if required.
 - Position: Top tie within 25 mm of top of stake and additional ties equally spaced along the stake.
- Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.

550 DOUBLE STAKING FOR TREES

- Staking:
 - Position: Either side of tree position and perpendicular to wind direction.
 - Driving: Vertically at least 300 mm into bottom of pit before planting.
 - Backfilling: Consolidate material around stake.
 - Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
- Height of stakes: 2500.
- Horizontal bracing: Timber cross bar, 100 mm x 38 mm x 1100 mm.
 - Fixing: Firmly fix using nails on windward side of tree and as close as possible to the stem without making contact with the bark. Position cross bar horizontally and 25 mm from top of stakes.
- Ties:
- Tying: Secure tree firmly but not rigidly to cross bar. Prevent tree from touching cross bar using spacer blocks or cushions.
- Nails for fixing ties, belts and webbing: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- Nails for fixing cross bars:

576 TREE PIT SURFACING – LOOSE FILL

- Surfacing material: Mulch, as section Q28.
- Area: 1000 mm radius circle.
- Depth: 75 mm.
- Watering: Water soil thoroughly before laying.
- Installation: Ensure the base of the tree stem is kept free from loose filled material.

586 TREE BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required.
- Ameliorant/ Conditioner: Peat free compost at 7 Ltrs / pit and Rootgrow Professional. UK origin mycorrhizal fungi including bio-additives. Mycorrhizal fungi component to contain spores, mycelium, dried plant root containing mycelium and attapulgitic clay, colonised by mycelium. Product should not contain fertilisers. Additives should be proven to enhance mycorrhizal colonisation.
 - Application rate: 5 or 10 Ltr plastic tub for use as a dry granule on containerised stock or to be mixed with bag of hydrogel on site to form a root dipping treatment for bare root plants. As per manufacturer's recommendations.
- Fertilizer: Organic Scott's N-Mag Lite (Green Tech (Tel: 01423 332 100) or similar approved.
 - Application rate: To manufacturer's/ supplier's recommendations.

590 MULCHING TREES

- Material: Coarse grade bark mulch consisting of composted pine and larch with 90% of the bark falling within the size range 50-100 mm.
 - Purity: Free of pests, disease, fungus and weeds.
 - Recycled content: Submit proposals.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: In a circular area of 500 mm radius measured from the tree stem at 75mm depth.
- Finished level of mulch: 50 mm below adjacent grassed or paved areas.

PROTECTING / MAINTAINING / MAKING GOOD DEFECTS**710 MAINTENANCE**

- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
 - Exclusions: Theft or malicious damage after completion.
 - Rectification: Replace with equivalent plants/ trees/ shrubs.
- Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
- Timing of making good: During the next suitable planting season.

740 CLEANLINESS

- Soil and arisings: Remove from hard surfaces and grassed areas.
- General: Leave the works in a clean tidy condition at completion and after any maintenance operations.

750 PLANTING MAINTENANCE GENERALLY

- Weed control: Maintain weed free area around each tree and shrub.
 - Diameter (minimum): The larger of 1 m or the surface of original planting pit.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Staking: Check condition of stakes, ties, guys and guards.
 - Broken or missing items: Replace.
 - Rubbing: Prevent.
 - Ties: Adjust to accommodate growth.
 - Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
 - Frequency of checks: At each scheduled maintenance visit.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- Trees: Spray crown when in leaf during warm weather.
 - Timing: After dusk.
- Watering: When instructed.