

320120379P

WOONE LANE LANDSCAPING SPECIFICATION
CLITHEROE

TEP REF: 3244 001

Q28 Topsoil, growing media and ameliorants

To be read with Preliminaries/ General conditions.

SYSTEM OUTLINE

110 TOPSOIL SYSTEM FOR ALL GRASSED AREAS, ORNAMENTAL PLANTING, HEDGE AND TREE PITS

- Topsoil: Imported topsoil to BS 3882.
- Ameliorants: None
- Accessories: None

PRODUCTS

300 PREPARATION MATERIALS GENERALLY

- Purity: Free of pests, disease, and fungus
- 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

310 MATERIALS NOT PERMITTED

- Materials: Peat and Products containing peat.

315 IMPORTED TOPSOIL TO BS 3882

- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- Standard: To BS 3882
- Classification: Multipurpose
 - Grade: 0 6-2 mm.
- Source: Contractor's choice.
 - Product reference: Contractor's choice

355 ORGANIC MATERIALS FOR TOPSOIL MANUFACTURE

- Type: Bark
- Source: Contractor's choice
 - Product reference: Submit proposals

EXECUTION

610 TOPSOIL ANALYSIS

- Soil to be analysed: Imported topsoil.
 - Soil analyst: Contractor's choice
 - Samples: Collect in accordance with BS 3882.
 - Submit:
 - Declaration of analysis:
 - Chemical analysis and contaminants;
 - Maximum stone content, stone size and pH value;
 - pH value and textural classification; and
 - Phytotoxic and CLEA elements
- Report detailing soil analyst's recommendations.

- 620 IMPORTING TOPSOIL
- Give notice: Before stripping topsoil for transfer to site
Notice period: 5 days
- 625 SAMPLE LOADS FOR IMPORTED TOPSOIL
- Deliver to site a sample load: of 5 kg
 - Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
 - Notice period: 5 days.
- 630 DOCUMENTATION FOR IMPORTED TOPSOIL FOR SHRUB BEDS
- 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: 2
- 650 NOTICE
- Give notice before:
 - Setting out.
 - Spreading topsoil
 - Applying herbicide.
 - Applying fertilizer
 - Visiting site during maintenance period
 - Period of notice: One week
- 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
 - Areas of thicker topsoil: Excavate locally
- 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 lawn areas and planting beds
 - Notice period: 7 days.
- 685 SURPLUS MATERIALS TO BE REMOVED
- Topsoil: Remove from site topsoil remaining after completion of all landscaping work as agreed with Project Manager.
 - Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
- 690 TOPSOIL STORAGE HEAPS
- Location: Throughout the site.
 - Height (maximum): 1.0 m.
 - Width (maximum): 2.0 m
 - 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

697 CULTIVATION:

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): 2-8 mm
- Timing: Within a few days before planting.
- Weather and ground conditions: Suitably dry

Surface: Leave regular and even.

Levels: 50 mm above adjoining lawns

Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50 mm

Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate

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
- Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 100 mm.
- Give notice: If required levels cannot be achieved by movement of existing soil

705 HANDLING 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): 150 mm for grass areas, 450mm for ornamental planting areas and 800mm for trees
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible

720 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- Above adjoining paving or kerbs: 25 mm
- Below dpc of adjoining buildings: Not less than 150 mm.
- Shrub areas: Higher than adjoining grass areas by 50 mm.
- Within root spread of existing trees: Unchanged
- Adjoining soil areas: Match in
- Thickness of turf or mulch: Included

COMPLETION

905 APPLYING MAINTENANCE FERTILIZER

- Time of year: March or April
- Application: Evenly spread, carefully incorporating below mulch materials
- Rate: To manufacturer's recommendations

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

145 WATERING

- Quantity: Wet full depth of topsoil
- Application: Even and without displacing seed, seedlings or soil.
- Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing

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: 3 working days

170 SETTING OUT

- Boundaries: Mark clearly
- Delineation: In straight lines or smoothly flowing curves as shown on drawings.

PREPARATION

210 HERBICIDE FOR ALL GRASSED AREAS

- Type: Suitable for suppressing perennial weeds
- Timing: Allow fallow period before cultivation
Duration: 2 weeks

212 SEED BED CLEANING BEFORE SOWING ALL GRASSED AREAS

- Operations: As seed supplier's recommendations.

280 FINAL CULTIVATION

- Timing: After grading and fertilizing
- Seed bed: Reduce to fine, firm tilth with good crumb structure
 - Depth: 25 mm
 - Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted
 - Remove surface stones/earth clods exceeding:
General areas: 20 mm
Fine lawn areas: 10 mm.
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels

SEEDING

311 GRASS SEEDFOR ALL GRASSED AREAS

- Supplier: British Seed Houses
 - Mixture reference: A19
- Application rate: 35g/m²

319 QUALITY OF SEEDFOR 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

340 PRE-EMERGENT HERBICIDEFOR ALL GRASSED AREAS

- Standard: Pesticide Safety Directorate approved
- Application rate: In accordance with manufacturer's written recommendation
 - Timing: Immediately after sowing

352 EDGES TO SEEDED AREASADJACENT TO PLANTING BEDS AND TREE PITS

- Timing: After seeded areas are well established
- Edges: Clean straight lines or smooth curves
 - Mulch and soil: Draw back to permit edging
- Arisings: Remove
- Completion: Respread soil and mulch

TURFING

405 CULTIVATED TURFFOR GARDEN LAWN

- Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards
- Seed mixture: 35% Chewings fescue, 35% Slender red fescue, 20% Smooth stalked meadow grass, 10% Brown top bent
- Properties of soil used for turf production: Well drained sandy loam

420 DELIVERY AND STORAGE

- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist
- Frosty weather or waterlogged ground: Do not lift turf
- Delivery: Arrange to avoid need for excessive stacking
- Stacking height (maximum): 1 m
- Dried out or deteriorated turf: Do not use

423 INSPECTION OF TURF

- Give notice: Before lifting turf for all grassed areas

428 COMPOST DRESSING FOR TURF

- Type: Sanitized and stabilized compost
- Supplier: Contractor's choice
 - Product reference: Contractor's choice
- Standard: To PAS 100
- Horticultural parameters:
 - pH (1:5 water extract): 7.0-8.7
 - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m
 - Moisture content (m/m of fresh weight): 35-55%

- Organic matter content (minimum): 25%.
- Grading (air dried samples): 100% passing screen mesh aperture of 5 mm
- Carbon:Nitrogen ratio (maximum): 20:1.
- Texture: Friable
- Objectionable odour: None
- Composting Association certification: Required
- Declaration of analysis: Submit
- Additional analyses: Not required.
- Samples: Supply 5 kg sample before ordering
- Application rate: As manufacturer's recommendation
- Timing: Apply prior to cultivation

430 TURFING GENERALLY

- Time of year: To be agreed
- Timing of laying:
 - Spring and summer: Within 18 hours of delivery.
 - Autumn and winter: Within 24 hours of delivery.
- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry
- Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf
- Jointing: Laid with broken joints, well butted up. Do not stretch turf
- Edges: Whole turfs, trimmed to a true line.
- Adjusting levels: Remove high spots and fill hollows with fine soil
- Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers
- Dressing, brushed well in to completely fill all joints: 35% Finely sifted topsoil, 35% Compost, 30% Sand
- Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below

450 TRIMMING TURF

- Newly planted tree pits: Neatly cut away around individual trees
 - Diameter: 1000 mm
- Tree pit surface: Leave exposed

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: 50 mm
- Mower type: Contractor's choice
- Arisings: Remove from site

560 GRASS EDGING STRIPS FOR SHRUB BEDS

- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice
- Timing: After grass has become established
- Installation: In true straight lines or flowing curves
 - Installation height: Flush.

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

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 (excepting 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: One week
- 165 PREPARATION, PLANTING AND MULCHING MATERIALS
- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life
 - Certification of source, analysis, suitability for purpose and absence of harmful substances: Submit.
 - Certified materials: Submit proposals.
 - Give notice before ordering or using.
- 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
- 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
- 245 LABELLING AND INFORMATION
- General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
 - Full botanical name
 - Total number
 - Number of bundles
 - Part bundles
 - Supplier's name
 - Employer's name and project reference
 - Plant specification, in accordance with scheduled National Plant Specification categories
 - Additional information: Submit on request:
 - Country of origin;
 - Potting dates;
 - Propagation method and dates;
 - Pruning dates; and
 - Type of container.
- 255 PLANTS/ TREES RESERVED AT SUPPLIER'S PREMISES
- Types/ Species: As plant schedule
 - Predelivery inspection: Give notice.
 - Labelling: Identify inspected plants/ trees as reserved for use on this project
- 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

265A PLANT HANDLING, STORAGE TRANSPORT AND PLANTING

- Standard: To HTA '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: Coextruded polyethylene bags with black interior and white exterior.
 - All bare roots plants to be supplied in bags containing and enclosing the whole root system. Transplants should be supplied with shoots and roots fully enclosed in the bag, whereas larger shrubs and trees should have only the root system enclosed. The bag should be coextruded polythene bags with black interior and white exterior with larger trees packaged.
 - All plants shall be adequately packaged and protected during transportation from source to planting on site. To minimise storage of plant stock, operations are to be arranged so that trees and shrubs are planted immediately after each planting pit is prepared
- Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped
- Storage - Plants and trees to be stored in a secure and protected from site operations and over exposure to adverse weather conditions
- 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

290 SURPLUS MATERIAL

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

PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS

300 HERBICIDE TO ALL PLANTING BEDS

- Locations: All planting areas
- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation
 - Duration (minimum): As manufacturer's recommendation.

305 WEED CONTROL FOR INVASIVE NON-NATIVE WEEDS

- Locations: All planting areas
- General: Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding

375 CULTIVATION

- Compacted topsoil: Break up to full depth
- Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
 - Depth: 300 mm
 - Timing: Within a few days before planting
 - Weather and ground conditions: Suitably dry
- Surface: Leave regular and even
- Levels:
 - 25 mm above adjoining paving or kerbs;
 - 50 mm above adjoining lawns; and
 - Minimum 150 mm below dpc of adjoining buildings
- Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 30 mm
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate

PLANTING SHRUBS/ HERBACEOUS PLANTS/ BULBS

- 401 REGULAR PLANT LAYOUT TO ALL BEDS
- Spacing: As drawing D3244.002.
 - Density: As planting schedule.
- 405 SHRUB PLANTING PITS
- Timing: Excavate 1-2 days (maximum) before planting
 - Sizes: 150 mm wider than roots when fully spread and 300 mm deep
 - Pit bottom improvement Break up to a depth of 150 mm, incorporating 25 g of slow release fertilizer per planting pit
 - Backfilling material: Reuse excavated material
- 415 ANTIDESICCANT FOR CONIFERS/ EVERGREENS
- Manufacturer: Contractor's choice
 - Product reference: Contractor's choice.
 - Application: Dip before delivering to site Spray soon after planting
 - Do not apply in wet or frosty weather.
 - Ensure full coverage of underside of foliage
- 420 CLIMBING PLANTS
- Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward
 - Branches: Lightly secured to supports
 - Climber supports: Green plastics coated steel wire
 - Base height: 600 mm above ground
 - Extent: As drawing D3244.002
 - Centres: As drawing D3244.002
 - Distance from wall: N/A
 - Fixings: Galvanized screw eyes.
 - Centres: 1 m
- 470 FORMAL HEDGES
- Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
 - Planting: In trenches large enough to take full spread of roots Set out plants evenly
- 476 SHRUB, HERBACEOUS AND BULB BACKFILLING MATERIAL FOR CONTAINER PLANTING
- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required:
 - Ameliorant/ Conditioner: Sanitized and stabilized compost
 - Application rate: To manufacturer's/ supplier's recommendations
 - Fertilizer: Slow release
 - Application rate: To manufacturer's/ supplier's recommendations
- 480 AFTER PLANTING
- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil
 - Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows
 - Top dressing: Not required
 - Depth: N/A
- 485 MULCHING PLANTING BEDS
- Material: Fine grade bark mulch
 - Purity: Free of pests, disease, fungus and weeds
 - Recycled content: None permitted
 - Preparation: Clear all weeds Water soil thoroughly
 - Coverage: 75 mm depth.
 - Finished level of mulch: 30 mm below adjacent grassed or paved areas.

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: Reuse excavated material with Sanitized and stabilized compost
- Accessories: Root barrier where appropriate and doubt short staking

510 TREE PIT ROOT BARRIERS

- Locations: Wherever the installed rootball will be within 3.0 m of an existing underground service route or a building foundation or paved areas, root barriers are to be installed in accordance with manufacturer's installation Instructions
- Manufacturer: Greenleaf
 - Product reference: ReRoot 600
- Depth of top of root barrier below finished soil level: 75 mm
- Installation: With sides vertical

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): 50 mm diameter

575 SHORT DOUBLE STAKING FOREXTRA HEAVY / HEAVY STANDARD TREES IN SOFT LANDSCAPING

- Staking: Drive stakes vertically at least 300 mm into bottom of pit on either side of tree position before planting.
 - Backfilling: Consolidate material around stakes.
- Height of stakes: Cut to approximately 600 mm above ground level
- Cross bar: Wood, as stake
 - Firmly fix on windward side of tree and as close as possible to stem
- Ties: Adjustable ties
- Tying: Secure tree firmly but not rigidly to cross bar

586 TREE BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required
- Ameliorant/ Conditioner: Sanitized and stabilized compost
 - Application rate: To manufacturer's/ supplier's recommendations
- Fertilizer: Slow release
 - Application rate: To manufacturer's/ supplier's recommendations

590 MULCHING TREES

- Material: Fine grade bark mulch
 - Purity: Free of pests, disease, fungus and weeds
 - Recycled content: None permitted
- Preparation: Clear all weeds. Water soil thoroughly
- Coverage: Over an area of 1.2 x 1.2 m with the tree in the centre.
- Finished level of mulch: 50 mm below adjacent grassed or paved areas

PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS

710 MAINTENANCE

- Duration: Carry out the operations in the following clauses from completion of planting until the end of the rectification period
- Frequency of maintenance visits: In accordance with the agreed maintenance schedule

720 FAILURES OF PLANTING

- 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.
 - Keep planting beds clear of weeds: By use of approved non-residual herbicides.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
- 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: Contractor's choice to maintain and establish

755 PLANTING MAINTENANCE - FERTILIZER

- Time of year: March or April
- Fertilizer: Slow release.
 - Manufacturer: Contractor's choice
 - Product reference: Contractor's choice
- Application: Evenly spread, carefully incorporating below mulch materials
- Application rate: To manufacturer's recommendations

760 PLANTING MAINTENANCE - PRUNING

- General: Prune to promote healthy growth and natural shape
 - Dead, dying, diseased wood and suckers: Remove
 - Timing: In accordance with the agreed maintenance schedule
 - Trees: Favour a single central leading shoot
- Arisings: Remove

780 MAINTENANCE INSTRUCTIONS

- General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide details of any special procedures to be carried out

790 FINAL MULCHING

- Timing: At end of the maintenance period
- Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary
- Planting beds: Remulch
 - Depth (minimum): 75 mm
- Trees: Remulch
 - Depth (minimum): 75 mm

Q35 Landscape maintenance

To be read with Preliminaries/ General conditions

GENERALLY

- 105 MAINTENANCE OBJECTIVES
- Location: All landscape areas
 - Duration: One year post practical completion
 - Aims:
 - Enhanced landscape quality;
 - Improved landscape visual amenity;
 - Opportunities for recreation and sport; and
 - Provide wildlife habitat and increase biodiversity.
 - Restrictions: Not applicable
 - Results: As scheduled
- 110 NOTICE
- Give notice before:
 - Application of herbicide
 - Application of fertilizer
 - Watering
 - Each site maintenance visit
 - Period of notice: 7 days
- 130 REINSTATEMENT
- Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition
- 155 WATERING
- Supply: Potable mains water
 - Quantity: Wet full depth of topsoil
 - Application: Do not damage or loosen plants
 - Compacted soil: Loosen or scoop out, to direct water to rootzone
 - Frequency: As necessary for the continued thriving of all planting
- 160 WATER RESTRICTIONS
- General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding
- 170 DISPOSAL OF ARISING
- General: Unless specified otherwise, dispose of arisings as follows:
 - Biodegradable arisings: Remove to recycling facility
 - Grass cuttings: Remove to recycling facility
 - Tree roots and stumps: Remove from site
 - Shrub and tree prunings: Remove to recycling facility
 - Litter and nonbiodegradable arisings: Remove from site.
- 180 CHIPPING OR SHREDDING
- General: Not permitted on site
- 181 MECHANICAL EQUIPMENT
- General: Minimize
 - Prohibited equipment: Chippers
 - Timing: Use of mechanical equipment allowed between the hours of 10:00 am and 4:00 pm only
- 190 LITTER
- Extraneous rubbish not arising from the contract work: Collect and remove from site

- 195 PROTECTION OF EXISTING GRASS
- General: Protect areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly on grass.
- 197 CLEANLINESS
- Soil and arisings: Remove from hard surfaces.
 - General: Leave the works in a clean, tidy condition at completion and after any maintenance operations.

GRASSED AREAS

- 211 MAINTENANCE OF GRASSED AREAS
- Standard: To BS 7370-3. Carry out maintenance appropriate to each category of turf, as follows:
 - Objectives: To BS 7370-3, table 6.
 - Programme: To BS 7370-3, clause 11.
 - Mowing methods: To BS 7370-3, table 3.
- 220 GRASS CUTTING GENERALLY
- Before mowing: Remove litter, rubbish and debris.
 - Finish: Neat and even, without surface rutting, compaction or damage to grass.
 - Edges: Leave neat and well defined. Neatly trim around obstructions.
 - Adjoining hard areas: Sweep clear and remove arisings.
 - Drought or wet conditions: Obtain instructions.
- 226 TREE STEMS
- Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
 - Operations close to stems: Complete using hand tools.
- 250 LEAF REMOVAL
- Operations: Collect fallen leaves.
 - Special requirements: None.
 - Disposal: Remove from site for recycling.
- 255 FIRST CUT OF ALL GRASSED AREAS
- Height of initial growth: 75 mm.
 - Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove.
 - Height of first cut: 50 mm.
 - Mower type: Contractor's choice.
 - Arisings: Remove.
- 265 MOWING GENERAL AREAS
- Grass height: Maintain between 25 and 50 mm.
 - Arisings: Remove.
- 309 EDGES TO SEEDED AREAS
- Location: Planting beds and around newly planted trees.
 - Timing: After seeded areas are well established.
 - Edges: Cut to clean straight lines or smooth curves. Draw back soil to permit edging.
 - Arisings: Remove.
- 320 LEVELLING HOLLOWES AND BUMPS IN TURF
- Standard: To BS 7370-3, clauses 12.4 and 12.5.
- 350 FERTILIZER - SPRING APPLICATION
- Type: Slow release.
 - Application rate: As manufacturer's recommendation.
- 381 REINSTATEMENT OF WORN OR DAMAGED LAWNS
- Worn or damaged areas: Make good by re-turfing or re-seeding.

- Returfing standard: To BS 7370-3, Clause 12.2.
- Reseeding standard: To BS 7370-3, Clause 12.6
- Turf or seed: To match existing in appearance and quality.
- Protection and watering: Provide as necessary to promote successful germination and/or establishment.

SHRUBS/TREES/HEDGES

500 ESTABLISHMENT OF NEW PLANTING

- Duration: One year
- Weed control:
 - Method: Keep planting beds clear of weeds by maintaining full thickness of mulch
 - Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit
- Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch
- Watering: When instructed

502 ESTABLISHMENT OF NEW PLANTING - FERTILIZER

- Time of year: March or April.
- Type: Slow release
- Spreading: Spread evenly. Carefully lift and replace any mulch materials
 - Application rate: As manufacturer's recommendations

510 TREE STAKES AND TIES

- Inspection/ Maintenance times: As scheduled and immediately after strong winds
- Stakes:
 - Replace loose, broken or decayed stakes to original specification
 - If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie
- Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
 - Where chafing has occurred, reposition or replace ties to prevent further chafing
- Removal of stakes and ties: When instructed
 - Fill stake holes with lightly compacted soil

520 REFIRMING OF TREES AND SHRUBS

- Timing: After strong winds, frost heave and other disturbances
- Refirming: Tread around the base until firmly bedded
- Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and refirm.

540 PRUNING GENERALLY

- Pruning: In accordance with good horticultural and arboricultural practice
 - Removing branches: Do not damage or tear the stem or bark.
 - Wounds: Keep as small as possible and cut cleanly back to sound wood
 - Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
- Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance
- Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
- Disease or infection: Give notice if detected.
- Growth retardants, fungicide or pruning sealant: Do not use unless instructed

545 PRUNING OF EXCESSIVE OVERHANG

- Timing: Annually
- Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
- Special requirements: None

- 550 PRUNING OF EXCESSIVE HEIGHT
- Timing: Annually
 - Operations: Remove excessive height As instructed
- 555 PRUNING TREES AND SHRUBS
- Standard: To BS 7370-4
 - Special requirements: Growth retardents not permitted
- 570 FORMATIVE PRUNING OF YOUNG TREES
- Standard: Type and timing of pruning operations to suit the plant species
 - Time of year: Do not prune during the late winter/ early spring sap flow period
 - Young trees up to 4 m high:
 - Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well balanced head and ensure the development of a single strong leader
 - Remove duplicated branches and potentially weak or tight forks In each case cut back to live wood
 - Whips or feathered trees: Do not prune
 - Operatives: Approved specialist contractor
- 575 PRUNING ORNAMENTAL SHRUBS
- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g flowers, fruit, autumn colour, stem colour
 - Suckers: Remove by cutting back level with the source stem or root
- 580 PRUNING FLOWERING SPECIES OF SHRUBS AND ROSES
- Time of year:
 - Winter flowering shrubs: Spring.
 - Shrubs flowering between March and July: Immediately after the flowering period
 - Shrubs flowering between July and October: Back to old wood in winter.
 - Rose bushes: Early spring to encourage basal growths and a balanced, compact habit
- 600 TRIMMING RAPIDLY ESTABLISHING HEDGES
- General: Allow to reach planned height as rapidly as possible
 - Form: Trim back lateral branches moderately
- 620 REMOVAL OF DEAD PLANT MATERIAL
- Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems
- 630 DEAD AND DISEASED PLANTS
- Removal: As soon as possible
 - Replacement: In the next suitable planting season
- 635 REINSTATEMENT OF SHRUB/ HERBACEOUS AREAS
- Dead and damaged plants: Remove
 - Mulch/ matting materials:
 - Carefully move to one side and dig over the soil, leaving it fit for replanting
 - Do not disturb roots of adjacent plants
 - Replacement plants:
 - Use pits and plants: To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater
 - Additional requirements: Submit proposals
 - Dressing: Slow release fertilizer:
 - Type: Submit proposals
 - Application rate: As manufacturer's recommendations
- 645 WEED CONTROL GENERALLY
- Weed tolerance: At all times, weed cover less than 5% and no weed to exceed 100 mm high
 - Adjacent plants, trees and grass: Do not damage

- 650 **HAND WEEDING**
- General: Remove weeds entirely, including roots
 - Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible
 - Completion: Rake area to a neat, clean condition.
 - Mulch: Reinstall to original depth.
- 657 **HERBICIDE TO KILL REGROWTH**
- Type: Suitable foliar acting herbicide to kill regrowth.
- 665 **WEED CONTROL WITH WINTER HERBICIDE**
- Type: Suitable residual soil acting herbicide
 - Time of year: Unless otherwise agreed, complete before end of March
- 670 **WEED CONTROL WITH SUMMER HERBICIDE**
- Type: Suitable foliar acting herbicide.
 - Timing: Allow recommended period for herbicide to take effect before clearing dead weeds
- 685 **SOIL LEVEL ADJUSTMENT**
- Level of soil/mulch at edges of beds: Reduce to 50 mm below adjacent grass or hard surface
 Arising (if any): Spread evenly over the bed
- 690 **MAINTENANCE OF LOOSE MULCH**
- Thickness (minimum): 75 mm
 - Top up: Twice per year.
 - Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
 - Weeding: Remove weeds growing on or in mulch by hand weeding
- 700 **SNOW REMOVAL FROM SHRUBS/ TREES**
- Standard: To BS 7370-4.
 - Plants subject to snow removal: All evergreens
 - Timing: Within 24 hours of snowfall.

TREE WORK

- 810 **TREE WORK GENERALLY**
- Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned
 - Protection: Avoid damage to neighbouring trees, plants and property.
 - Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'
 - Removing branches: Cut as Arboricultural Association Leaflet 'Mature tree management'
 Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater
 - Appearance: Leave trees with a well balanced natural appearance
 - Chain saw work: Operatives must hold a Certificate of Competence.
 - Tree work: To be carried out by an approved member of the Arboricultural Association
- 815 **ADDITIONAL WORK**
- Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected
- 820 **PREVENTION OF WOUND BLEEDING**
- Standard: To BS 3998, clause 8
- 825 **PREVENTION OF DISEASE TRANSMISSION**
- Standard: To BS 3998, clause 9 and Appendix B.
- 830 **CLEANING OUT AND DEADWOODING**
- Remove:
 - Dead, dying, or diseased wood, broken branches and stubs

- Fungal growths and fruiting bodies
- Rubbish, wind blown or accumulated in branch forks
- Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained
- Other unwanted objects, e.g. tree houses, swings
- Climbing plants as schedule

835 CUTTING AND PRUNING GENERALLY

- Tools: Appropriate, well maintained and sharp
- Final pruning cuts:
 - Chainsaws: Do not use on branches of less than 50 mm diameter
 - Hand saws: Form a smooth cut surface
 - Anvil type secateurs: Do not use
- Removing branches: Do not damage or tear the stem
- Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible
 - Large branches: Remove only with prior approval
 - Remove in small sections and lower to ground with ropes and slings
- Dead branches and stubs: When removing, do not cut into live wood
- Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions
- Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed

865 BARK DAMAGE

- Wounds:
 - Do not attempt to stop sap bleeding
 - Bark: Remove ragged edges using a sharp knife
 - Wood: Remove splintered wood from deep wounds
 - Size: Keep wounds as small as possible
- Liquid or flux oozing from apparently healthy bark: Give notice