JOHN STREET CARDIFF

PLANIT

Contents

Q28
Topsoil and soil ameliorants

Clauses

To be read with preliminaries/ general conditions.

System outline

156 Ornamental Bark Mulch

1. Product (Benchmark for desired quality): 'Pine Ornamental Bark'
   18-35mm
   Supplier: https://www.ahs-ltd.co.uk
   phone: 0333 207 0440

   Thickness of mulch layer: 50-80mm

Products

300 Preparation materials generally

1. Purity: Free of pests and disease.
2. 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.
3. Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
   3.1. Corrosive, explosive or flammable.
   3.2. Hazardous to human or animal life.
   3.3. Detrimental to healthy plant growth.
4. Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
5. Objectionable odour: None.
6. Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

301J Soil materials generally

1. Purity: Free of pests, disease, and fungus.
2. 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
3. the like.
4. Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
   4.1. Corrosive, explosive or flammable.
   4.2. Hazardous thuman or animal life.
   4.3. Detrimental thealthy plant growth.
5. Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
6. Objectionable odour: None.
7. Give notice: If any evidence or symptoms of soil contamination are discovered on the the
8. site or in topsoil or planting media to be imported.

310 Materials not permitted

1. Materials: Products containing peat

316 Imported topsoil to BS 3882:2015

1. Description: FOR PLANTING BEDS, GRASS AND TREE PITS
2. Quantity: All soils to be imported. Existing soils not to be re-used.
3. Standard: To BS 3882:2015
4. Classification: Multipurpose
    4.1. Soil textural class to BS 3882, Figure 1: Sandy loam
5. Source: Manufactured. Provide qualitative analysis and source details prior to
6. delivery to site. Report is to include recommendations for soil improvement if required.
7. All topsoil will be subject to the approval of a 5m3 sample delivery.
8. All topsoil to comply with Clause Q28/616, Q28/618 and Q28/619 to ensure suitability for use.

337 Imported subsoil to BS8601:2013

1. Description: TO ALL PLANTING AREAS AND TREE PITS
2. Standards: In accordance with BS8601:2013
3. Parameters:
4. Sand content: more than 65%
5. Particle size: Over 50% ranging from 0.25mm to 0.5mm
6. Organic content: Less than 2%

401 Organic fertilizers

7. Description: TO ALL PLANTING AREAS AND TREE PITS
8. Manufacturer/ source: Everis
    8.1. Product reference: Scotts EN-Mag controlled release fertiliser or equal and approved
9. Standard: In accordance with The EC Fertilisers (England and Wales) Regulations 2006
10. Purpose: General purpose fertilizer
11. Type: As manufactured
12. Availability to plants: Controlled release

401A Organic fertilizers

1. Description: FOR GRASSED AREAS
2. Manufacturer/ source: Scotts
    2.1. Product reference: PS5 Pre-seeder or equal and approved
3. Standard: In accordance with The EC Fertilisers (England and Wales) Regulations 2006
4. Purpose: Pre-seeding fertilizer
5. Type: As manufactured
6. Availability to plants: Controlled release

Execution

616 Sampling and testing

1. IMPORTED SOILS
2. The soil materials considered for importation shall be independently sampled while
3. stockpiled off site at their source or manufacture location.
4. The samples shall be truly representative of the soil to be offered. One Composite Sample
5. shall be taken for every 250m3 of each type of soil to be imported, with a minimum of 3 no.
6. samples to be tested per source (whichever is greater). Samples shall be analysed strictly in accordance with the Testing Schedule given in clauses Q28/618 below. The samples shall be analysed and reported on a 10 working day turnaround and the Contractor should incorporate this in their programme.
7. An accelerated analysis turnaround will be permitted at the Contractor's cost where programme constraints deem this necessary.
8. The sampled soil materials shall be temporarily stockpiled at the source location until the Contract administrator has provided written approval on its suitability for use within the project.

618 Imported topsoil – Testing Schedule

1. Topsoil samples shall be tested prior to approval by the Contract Administrator. The
2. following parameters shall be requested (methods in accordance with BS3882: 2007 and additional contaminants as listed below:

1. Visual examination to record Munsell colour, moisture status, aerobic state, soil structure, texture, stoniness (size & shape), the presence of any deleterious materials
2. pH Value (1: 2.5 soil/water extract)
3. Electrical Conductivity (1: 2.5 soil/water extract)
4. Electrical Conductivity (1: 2.5 soil/CaSO4 extract)
5. Exchangeable Sodium Percentage
6. Particle Size Analysis (clay, silt, 5 sands – USGA sieve sizes)
7. Stone Content by % weight (2-20mm, 20-50mm, >50mm)
8. Total Nitrogen (% - Dumas Method)
9. Extractable Phosphorus, Potassium & Magnesium (RB427 Method)
10. Organic Matter (%)
11. Carbon: Nitrogen ratio (by calculation)
12. Calcium Carbonate (%)

Contaminants:

13. Standard Metals/ Metalloids (As, Cd, Cr, CrVI, Cu, Hg, Ni, Pb, Se, Zn)
14. Speciated PAHs (US EPA16 Specification)
15. Asbestos

Additional samples and/or additional testing (eg. saturated hydraulic conductivity) may be required if the initial results are not satisfactory or conclusive

619 Imported topsoil – Assessment Criteria

1. Topsoil shall be tested to comply with BS3882 specification for ‘multipurpose grade’
2. Contamination Level Criteria: To not exceed those values defined under the ‘residential with homegrown produce’ land use in the ‘Suitable for use Levels’ described in ‘The LQM/CIEH S4UIs’ for Human Health Risk Assessment (2015) and DEFRA SP1010:’Development of Category 4 Screening Levels’ for Assessment of Land Affected by Contamination – Policy Companion Document (2014).

620 Importing topsoil & subsoil

1. Give notice: Before stripping topsoil for transfer to site.
    1.1. Notice period: 5 days

625 Sample loads

1. Description: FOR ALL IMPORTED TOPSOIL
2. Deliver to site a sample load: of not less than 5 m^3
3. Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
    3.1. Notice period: 5 days

630 Documentation for imported topsoil

1. Description: FOR GENERAL LANDSCAPE USE
2. Timing: Submit at handover.
3. Contents
    3.1. Full description of all soil components.
    3.2. Record of source for all soil components.
    3.3. Record drawings showing the location and depth of all soils by type and grade.
    3.4. Declaration of analysis: UKAS accredited laboratory. Certificate of Analysis and interpretation of the results to determine suitability for use to be provided.
4. Number of copies: Three

635 Documentation for compost and composted materials

1. Description: FOR IMPORTED SOIL IMPROVERS AND COMPOST
2. Timing: Submit at handover.
3. Contents
    3.1. Full description of all compost components.
    3.2. Record of source for all compost components.
    3.3. Analyst's report for each test carried out.
    3.4. Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
    3.5. Quality Compost Protocol certification: Required
4. Number of copies: Three

640 Documentation for preparation materials

1. Description: FOR IMPORTED SOIL IMPROVERS
2. Timing: Submit at handover.

3. Contents
    3.1. Full description of all components.
    3.2. Record of source for all components.
    3.3. Analyst's report for each test carried out.
    3.4. Supplier's declaration of compliance with BSI PD CR 13456.
4. Number of copies: Three

650 Notice

1. Give notice before
    1.1. Setting out.
    1.2. Spreading topsoil.
    1.3. Applying herbicide.
    1.4. Applying fertilizer.
    1.5. Visiting site during maintenance period.
2. Period of notice: 3 working days

655 Mechanical tools

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

660 Grading subsoil for:

1. Description: PLANTING BEDS, LAWN AND TREE PITS
2. Standard: In accordance with BS 8601.
3. General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
4. Areas of thicker topsoil: Excavate locally.
5. Avoid compaction.
6. Excess subsoil: Remove.

665 Subsoil surface preparation for:

1. Description: FOR ALL PLANTED AND GRASSED AREAS
2. Standard: In accordance with BS 3882.
3. General: Excavate and/ or place fill to required profiles and levels, as section D20.
4. Loosening
    4.1. When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth
        4.1.1. Light and noncohesive subsoils: 300 mm
        4.1.2. Rock and chalk subgrades: Lightly scarify to promote free drainage.
    4.2. Wet conditions: Do not loosen subsoils.
5. Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
6. Remove from site: Arisings, contaminants and debris and builder's rubble

670 Inspecting formations

1. Give notice: Before spreading topsoil for lawn areas and planting beds.
2. Notice period: 7 days

681 Handling topsoil and subsoil

1. Plant: Select and use plant to minimise disturbance, trafficking and compaction.

2. Contamination: Do not mix topsoil with:
    2.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
    2.2. Other grades of topsoil.
3. Multiple handling: Keep to minimum. Use or stockpile topsoil immediately after stripping.
4. It is important tavoid physical degradation tthe soil during all phases of soil handling
5. (e.g. spreading, cultivation, amelioration, planting, turfing and seeding). As a
6. consequence,
7. soil handling operations shall be carried out when soil is non-plastic (friable) in
8. consistency
9. (i.e. at least 5% below the soil's lower plastic limit).
10. Soil shall not be unnecessarily compacted by trampling or trafficking by site machinery.
11. Soil shall not be handled when frozen unless authorised by the Contract Administrator.
12. Soil handling shall be stopped during and after heavy rainfall, and not continue until the
13. soil has regained a non-plastic (friable) consistency.
14. If, during the course of the soiling and landscape works, the soil is compacted, it shall be
15. suitably cultivated to relieve the compaction and restore the structure prior to any
16. planting, turfing or seeding.

685 Surplus materials to be removed

1. Topsoil removal from site: Including site won, excavated material and surplus imported topsoil remaining after completion of all landscaping work
2. Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

690 Topsoil storage heaps

1. Location: As identified by the contractor
2. Height (maximum): 1.5 m
3. Width (maximum): 4.0 m
    3.1. Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
4. Protection
    4.1. Do not place any other material on top of storage heaps.
    4.2. Do not allow construction plant to pass over storage heaps.
    4.3. Prevent compaction and contamination, by fencing and covering as appropriate.

700 Grading of topsoil

1. Topsoil condition: Reasonably dry and workable.
2. Contours: Smooth and flowing, with falls for adequate drainage.
    2.1. Hollows and ridges: Not permitted.
3. Give notice: If required levels cannot be achieved by movement of existing soil.

705 Handling topsoil

1. Standard: In accordance with BS 3882.
2. Aggressive weeds: Give notice and obtain instructions before moving topsoil.
3. Plant: Select and use plant to minimize disturbance, trafficking and compaction.
4. Contamination: Do not mix topsoil with:
    4.1. Subsoil, stone, hardcore, rubbish or material from demolition work.

    4.2. Other grades of topsoil.
5. Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
6. 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 on:

1. Description: ALL AREAS
2. Standard: In accordance with BS 3882.
3. Temporary roads/ surfacing: Remove before spreading topsoil.
4. Layers
    4.1. Depth (maximum): 150 mm.
    4.2. Gently firm each layer before spreading the next.
5. Depth after firming and settlement: 200mm to lawn areas, 300mm to planted areas, 300mm to tree pits
6. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

711 Spreading subsoil on:

7. Description: ALL AREAS
8. Standard: In accordance with BS 8601:2013
9. Temporary roads/ surfacing: Remove before spreading subsoil.
10. Layers
    10.1. Gently firm each layer before spreading the next.
11. Depth after firming and settlement: 200mm to lawn areas, 200mm to planted areas, 700mm to tree pits
12. Crumb structure: Do not compact subsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715 Loose tipping of topsoil

1. Standard: In accordance with BS 3882.
2. 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

1. Description: FOR TURFING
2. Compacted topsoil: Break up to full depth.
3. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
4. Depth: 100 mm
5. Particle size (maximum): 2-8 mm
6. Timing: After grading and fertilizing, and within a few days before seeding
7. Weather and ground conditions: Suitably dry.
8. Surface: Leave regular and even.
9. Levels: As per Landscape Architect's drawing

10. Undesirable material brought to the surface
    10.1. Remove visible weeds.
    10.2. Remove roots and large stones with any dimension exceeding 50 mm.

718A Final cultivation

1. Description: FOR PLANTING BEDS
2. Compacted topsoil: Break up to full depth.
3. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
4. Depth: 200 mm
5. Particle size (maximum): 2-8 mm
6. Timing: Within a few days before planting
7. Weather and ground conditions: Suitably dry.
8. Surface: Leave regular and even.
9. Levels: As per Landscape Architect's drawing
10. Undesirable material brought to the surface
    10.1. Remove visible weeds.
    10.2. Remove roots and large stones with any dimension exceeding 50 mm.

720A Finished levels of topsoil after settlement

1. In relation to adjoining paving, kerbs or hard surfaces: Level with adjacent surfaces
2. In relation to dpc of adjoining buildings: Not less than 150 mm below.
3. In relation to adjacent grass areas: 25 mm above
4. Adjoining soil areas: Marry in.
5. Thickness of turf or mulch: Included.

805 Applying soil ameliorant

1. Description: FOR GENERAL USE (WHERE DEEMED NECESSARY)
2. Type: Soil testing to determine
3. Locations: All planting areas
4. Fully incorporate into topsoil to a depth of 200 mm.
5. Application: Spread evenly.
    5.1. Timing: Apply prior to cultivation.
    5.2. Rate: To be advised upon receipt of soil testing results
6. Timing: Prior to cultivation.
7. Other requirements: None

810 Applying compost

1. Description: FOR PLANTED AREAS
2. Application rate for trees and shrubs: 50 mm thick to shrub areas. 40ltrs per tree pit in soft landscaping
    2.1. Timing: Apply prior to cultivation.
3. Application rate for grass: 25 mm thick layer
    3.1. Timing: Apply prior to cultivation.
4. Application rate for planters: N/A
    4.1. Timing: Apply prior to cultivation.

5. Other requirements: Submit 5kg sample before ordering

820 Applying general fertilizer

1. Description: TO TREE AND SHRUB PLANTING
2. Application: Spread evenly, carefully incorporating below mulch materials.
    2.1. Timing: Immediately before cultivation.
    2.2. Application rate: To manufacturer's details
    2.3. Other requirements: None

825A Applying fertilizer to proposed turfed areas

1. Description: TO TURFED AREAS
2. Application: Before final cultivation and three to five days before turfing.
3. Coverage:
4. Spread evenly, in transverse directions.
    4.1. Rate: To manufacturer's details

830 Applying top dressing

1. Description: TO TURFING
2. Rate: To manufacturer's recommendations
3. Timing: Apply prior to cultivation.

845A Applying loose mulch

1. Description: TO ALL PLANTED AREAS AND TREES WITHIN GRASS
2. Timing: Immediately after planting
3. Preparation: Ensure that soil is thoroughly moistened, applying water where necessary
4. Coverage of mulch (minimum)
    4.1. Planting beds (depth): 50 mm depth
    4.2. Trees: 50 mm depth
    4.3. Container planting: 50 mm depth
5. Finished level of mulch: To landscape architect's drawings
6. Provide 800mm diameter mulch zone around trees in lawn.
7. Contractor to provide a sample prior to installation.

Completion

905J Applying maintenance fertilizer to turfing

1. Description: TO TURFING
2. Duration: Carry out the following operations from completion of seeding/ turfing until the end of the rectification period.
3. Time of year: Spring
4. Application: Evenly spread in accordance with the manufacturers recommendations.
5. Rate: To manufacturer's recommendations

Ω End of Section

Q31
External planting

Clauses

2 To be read with preliminaries/general conditions.

General information/ requirements

112 Site clearance generally

1. General: Applies to areas where no other trades are responsible for keeping the site clean. It doesn't apply to areas either where imported soils don't contain undesirable items.

   Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
2. Stones: Remove those with any dimension exceeding 75 mm.
3. Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
4. Vegetation: Clear scrub to ground level by flail mowing and remove arisings
5. Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
6. Additional requirements: None

118 Soil conditions

1. Soil for cultivating and planting: Moist, friable and not waterlogged.
2. 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

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

126 Times of year for planting

1. Deciduous trees and shrubs: Late October to late March.
2. Conifers and evergreens: September/ October or April/ May.
3. Herbaceous plants (including marginal): September/ October or March/ April.
4. Container grown plants: At any time if ground and weather conditions are favourable.
   4.1. Watering and weed control: Provide as necessary.
5. Dried bulbs, corms and tubers: September/ October.
6. Colchicum (crocus): July/ August.
7. Green bulbs: After flowering in spring.

130 Mechanical tools

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

145 Watering

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

150 Water restrictions

1. 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

1. Give notice before
   1.1. Setting out.
   1.2. Applying herbicide.
   1.3. Applying fertilizer.
   1.4. Delivery of plants/ trees.
   1.5. Planting shrubs.
   1.6. Planting trees into previously dug pits.
   1.7. Watering.
   1.8. Visiting site during maintenance period.
2. Period of notice: Three working days

170 Soil requirements

1. Type
   1.1. Planted beds: Planting bed soil system, as section Q28
   1.2. Tree pits, shrub pits and other backfilling: Plant pit backfilling soil system, as section Q28
   1.3. External container planting: Container planting growing media system, as section Q28
   1.4. Mulch applied after planting: Mulching and top dressing system, as section Q28

200 Trees, shrub and other plant specification

1. For species, specification and quantities refer to schedules on softworks drawings.

201 Plants/ Trees – general

1. Condition: Materially undamaged, sturdy, healthy and vigorous.
2. Appearance: Of good shape and without elongated shoots.
3. Hardiness: Grown in a suitable environment and hardened off.
4. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
5. Budded or grafted plants: Bottom worked.
6. Root system and condition: Balanced with branch system.
   6.1. Standard: The relevant parts of BS 3936
7. Species: True to name.
8. Origin/ Provenance: Grown in the United Kingdom for at least one growing season, unless otherwise approved
9. Definition: Origin and Provenance have the meaning given in the National Plant Specification.

216 Plants/ Trees – specification criteria

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

219 Semi-mature trees

1. GENERAL
2. To BS 4043, sizes and other criteria as scheduled.
3. Transplant to BS 4043 unless specified otherwise in this clause.

4. Trees grown in nurseries shall have been transplanted every 4-5 and 6-8 years
5. comparable to their height and rootball size.
6. All imported material must have proof of being free of disease. A certificate of health must
7. be provided for inspection by the CA and the Local Authority Forestry Officer Origin and
8. Provenance have the meaning given in the National Plant Specification.

225 Bulbs/ Corms/ Tubers

1. Condition: Firm, entire, not dried out or shrivelled.
2. Health: Free from pests, diseases and fungus.
3. Handling: Remove from packaging immediately.
4. Storage: Permitted only when necessary.
   - 4.1. Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
   - 4.2. Duration: Minimum period.
   - 4.3. Temperature: 18-21°C.

235 Container grown plants/ Trees

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

245 Labelling and information

1. 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:
   - 1.1. Full botanical name.
   - 1.2. Total number.
   - 1.3. Number of bundles.
   - 1.4. Part bundles.
   - 1.5. Supplier's name.
   - 1.6. Employer's name and project reference.
   - 1.7. Plant specification, in accordance with scheduled National Plant Specification categories.
2. Additional information: Submit on request: Country of origin.

246 Labelling and information

1. Standard: To BS 3936.

255J Plants/ trees reserved at supplier's premises

1. Types/ Species: All plant material
2. Predelivery inspection: The Landscape Architect is to inspect and approve all plant material
3. at the source or holding nursery prior to delivery to site
4. Labelling: Identify inspected plants/ trees as reserved for use on this project.

261 Plant/Tree Substitution

1. 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 approval from the Landscape Architect before making any substitution.

262 Tree Suppliers

1. Trees should be supplied by one of the following nurseries unless written approval is given to use an alternative supplier. At least one nursery inspection should be allowed for to enable the tagging of the required trees by the Landscape Architect on the nursery premises.

   UK nurseries:

   Hillier Trees
   Phone: 01794 368733

   Deepdale Trees:
   Phone: 01767 262636

   Barcham Trees PLC
   Phone: 01353 720748
   www.barcham.co.uk

   Specimen Trees:
   WA16 0QS

   European Nurseries:
   Bruns:
   Germany

   Lappen:
   Germany

   Further:
   - Lorenz von Ehren (D)
   - Van Den Berk (NL)
   - Ebben (NL)

265 Plant handling, storage transport and planting

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

280 Treatment of tree wounds

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

285 Protection of existing grass

1. General: Protect areas affected by planting operations using boards/ tarpaulins.
    1.1. Excavated or imported material: Do not place directly on grass.
    1.2. Duration: Minimum period.

290 Surplus material

1. Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
2.

Preparation of planting beds/ planting materials

300 Herbicide

1. Type: Suitable for suppressing perennial weeds.
2. Timing: Allow fallow period before cultivation.
    2.1. Duration (minimum):

305 Weed control

1. Description: FOR INVASIVE NON-NATIVE WEEDS
2. Locations: Whole site
3. General: Prevent weeds from seeding and perennial weeds from becoming established, by contractor's choice of herbicide and hand operations.

Planting shrubs/ herbaceous plants/ bulbs

400 Random plant layout

1. Description: TO ALL BEDS
2. Spacing: As per planting plans and planting schedule
3. Density: As per planting schedule

406 Shrub planting pits for large shrubs

1. Timing: Excavate 1-2 days (maximum) before planting.
2. Sizes: Wide enough to accommodate roots when fully spread and 75 mm deeper than root system
3. Pit bottom improvement Break up to a depth of 150 mm. ***Avoid interference with capping layer beneath as part of contamination capping layer.

445 Planting bulbs/ Corms/ Tubers

1. Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
2. Backfilling: Finely broken soil. Lightly firm to existing ground level.
3. Naturalized planting in existing grassed areas
   3.1. Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
   3.2. Planting: Neatly remove a plug of turf and replace after planting.

480 After planting

1. Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
2. 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.
3. Top dressing: Mulching and top dressing system, as section Q28
   3.1. Depth: 50 mm

Planting trees

500 Tree planting

1. Standard: Prepare trees and transplant in accordance with BS 4428

502 Structural Cell System Tree Pits

1. Refer to detail drawings for layout and full extents of tree pit rooting zone.
2. Use: For paved areas
3. Locations: Saw Mill Yard & Marshalls Mill
4. Product: Root Space 400 (Two Layers) or equal approved
5. Description: A loading bearing, proprietary cell system suitable to transfer surface loads past the tree pit.
6. Installation: 2 Layers to achieve 875mm depth rooting zone.
7. Supplier: Green Blue Urban Ltd or similar approved
8. Base: 200mm thick MOT Type 3 clean, no fines to provide necessary barrier to existing ground

503 Tree Soil in Soft

9. Refer to detail drawings for layout.
10. Use: Trees within shrub and lawn areas
11. Topsoil: To clause Q28/316, 618, 619: 300mm deep

12. Subsoil: To clause Q28/337: 700mm deep
13. Base: 200mm thick MOT Type 3 clean, no fines to provide necessary barrier to existing ground

510A Tree pit root barriers

1. Locations: refer to Tree Pit Extent plans and section details.
2. Supplier: Green-Tech Ltd tel: 01423332100
3. Product reference: GT permeable root barrier
4. Thickness: As per manufacturer's detail
5. Barrier depth: 1200 mm
6. Foil liner: Not required
7. Top of root barrier in relation to finished topsoil level: 50 mm below ground level
8. Installation: With sides vertical. Remove all sharp objects adjacent to barrier.

513 Tree pit irrigation and ventilation accessories – Trees in Soft

1. • Locations: Trees in soft areas.
2. • Manufacturer: GreenBlue Urban Ltd.
3. • Product reference: Rootrain Civic
4. • Type: 60mm Perforated plastics irrigation pipe with grid lid.
5. • Pipe diameter: As manufactured.
6. • Ring diameter: 900 mm.
7. • Inlet: Black plastics.
8. • Installation: 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 mulch layer

515A Tree pit drainage – All Trees/ Shrubs and Lawn Areas

1. Locations: To all tree pits
2. Aggregate layer: MOT Type 3 – No fines, crushed stone drainage layer to provide capping layer to contaminated ground whilst providing drainage for tree pits
   2.1. Depth: 100mm for shrub & lawn areas / 200mm for Tree Pits
3. Geotextile filter: Submit proposals
4. Position: Lay over aggregate before installing tree or backfill.
5. Completed pits: Test for free drainage before planting.

710 Maintenance

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

720 Failures of planting

1. Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
   1.1. Exclusions: Theft or malicious damage after completion.
   1.2. Rectification: Replace with equivalent plants/ trees/ shrubs.
2. Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
3. Timing of making good: In accordance with an agreed defects rectification programme

730 Protective fencing

1. Fencing type: Cleft chestnut pale fencing, as section Q40
2. Erection: On completion of planting.
3. Removal: After planting is well established

740 Cleanliness

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

750 Planting maintenance generally

1. Weed control: Maintain weed free area around each tree and shrub.
    1.1. Diameter (minimum): The larger of 1 m or the surface of original planting pit.

    1.2. Keep planting beds clear of weeds: By maintaining full thickness of mulch and hand hoeing operations
2. 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.
3. Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
4. Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
5. Trees: Spray crown when in leaf during warm weather.
    5.1. Timing: After dusk.
6. Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
    6.1. Broken or missing items: Replace.
    6.2. Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
    6.3. Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
    6.4. Ties: Adjust to accommodate growth and prevent constriction or abrasion.
    6.5. Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
    6.6. Frequency of checks: At each scheduled maintenance visit
7. Watering: As required for healthy establishment, depending on weather conditions

760 Planting maintenance – pruning

1. General: Prune to promote healthy growth and natural shape.
    1.1. Dead, dying, diseased wood and suckers: Remove.
    1.2. Timing: As appropriate to the species
    1.3. Trees: Favour a single central leading shoot.
2. Arisings: Remove.

780 Maintenance instructions

1. 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 a schedule of any ongoing maintenance problems experienced during the rectification period.

790 Final mulching

1. Timing: At end of the maintenance period.
2. Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
3. Planting beds: Remulch.
4. Depth (minimum): 50 mm
5. Trees: Remulch.
6. Depth (minimum): 50 mm

Ω End of Section

We design for the living world.
For today, tomorrow and the
next 200 years.

PLANIT

planit-ie.com
Manchester | Leeds | Liverpool | London | Standish

Leeds
+44 (0)113 824 6413

Liverpool
+44 (0)151 363 1230

London
+44 (0)207 253 5678

Manchester
+44 (0)161 928 9281

Standish
+44 (0)1453 607080