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Q31 External planting

To be read with Preliminaries/General conditions.

SPECIFICATION NUMBER 104000 / Q31 Date: 15-09-12 Revision: 01 - Title updated 28-09-12 Revision: T1 - Updated for Tender Issue 25.01.13 Revision: C1- Updated for Construction Issue 09-06-2014 Revision: C2 - Clause 420B omitted under DCR A-057 for approval 07-05-2015 Revision: C3 - Clause 292A updated under DCR A-131 for approval 27-11-2015

GENERAL INFORMATION/ REQUIREMENTS

- 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: to be agreed.

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: Contractor's choice..
 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: Potting dates..

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.

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.

PLANT CONTAINERS

- 292A PREFABRICATED PLANT CONTAINERS TO LEVEL 4 ROOF TERRACE
 - Manufacturer: Chris Brammall Architectural Metal Work or similar approved tel 01229 588580
 - www.chrisbrammall.com.
 - Product reference: all as indicated on dwg no 90 -2B-06.
 - Material: Brushed Stainless Steel.
 - Dimensions/ Shape: 8 no. circular 1200mm diameter 4@ 400mm high and 4@500mm high 15 no. 600mm diameter 5@ 400mm high 5@ 500mm and 5@ 550mm high 3no. wave form platers as indicated on drawing. Note these can be in sections.
 - · Lining: as recommended by manufacturer.
 - Accessories: as recommended by manufacturer.

298 WATERPROOFING LINING

- Material: as recomended by manufacturer.
- Base protection: as recomended by manufacture.
- Installation of liner:
 - Fully supported on the base.
 - Closely fitting to the sides of container.

PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS

- 400A RANDOM PLANT LAYOUT To Level 2 Planters
 - Perennials and Small Plants: Provide equal numbers of following: Luzula Nivea
 Dryopteria Filix-mas
 Brunnera Macrophylla 'emerald mist'
 Brunnera macrophylla Jack Frost
 Alyssum montanum
 Erigeron hybridus 'Adria'
 Geranium macrorrhizum
 Origanum vulgare
 Phlox subulata

Shrubs: Provide equal number of each of following: Amelanchier Canadensis Buxus sempervirens Deutzia gracilis Euonymus fortunei Genista lydia Hypericum pay 'hidcote' Jasminum nudifl orum Potentilla fruticosa

Spacing: Evenly to create waves of plant type.Density: as recommended by supplier.

- 400B RANDOM PLANT LAYOUT To Level 2 Planters
 - Ground Cover: Provide equal numbers of following: Helxine Soleirolii Vinca minor Atropurpurea Vinca minor Alba Vinca minor Periwinkle
 - Spacing: evenly Keeping plant types together.
 - Density: as recommended by supplier.

400C PLANT LAYOUT Trees to Level 2

Tree types: Trachycarpus Fortunei - 1no. to each of 3 central planters. Min Height 2500mm when planted Amelanchier lamarckii- 4 no. in edge bed keeep clear of windows. Min Height 1300mm when palnted Spacing: Locate centrally.

• Density: n/a.

401A REGULAR PLANT LAYOUT To Level 4 Wave form Hedging Plant Type: Buxus sempervirens Myrtus (myrtle) Hedges to be of single plant type. Mix 2/3 Buxus to 1/3 Myrtus Plants to be 600mm to 700mm high at time of planting. Cliped to form waves

- Spacing: Plant at 300mm centres.
- Density: Even at 300mm spacings.

- 401B REGULAR PLANT LAYOUT To circular pots Level 4 Plant Types: Provide equal numbers Only one plant type per pot
 - Bamboo and Bulrush: Phyllostachys aurea 'golden bamboo' Phyllostachys vivax aureocaulis Phyllostachys nigra Schoenoplectus lacustris

Grasses: Helictotrichon Mexican Feather grass

Spacing: As recommended by supplier.Density: as recommended by supplier.

- 420A CLIMBING PLANTS To Level 2 Planters
 - Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward.
 - Branches: Lightly secured to supports. Plant Type: Proved 3 no. of each of the following: Clematis montana 'rubens' Clematis tangutica Hedera helix
 - · Climber supports: wire supports fixed to walls.
 - Base height: 500mm.
 - Extent: 3000mm.
 - Centres: 300mm
 - Distance from wall: -.
 - Fixings: to be agreed .
 - Centres: as recommended by manufacturer.
- 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.

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: as per soil manufacturers recomendations.
 - Depth: to manufacturers details.

PLANTING TREES

PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS

- 710 MAINTENANCE
 - Duration: Carry out the operations in the following clauses from completion of planting until he end of the rectification period.
 - Frequency of maintenance visits: practical completion.

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.

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- 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 maintaining full thickness of mulch...
- 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: every 3 months.
- 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: 2 to 3 times per week once established, dependant on weather conditions..

755 PLANTING MAINTENANCE - FERTILIZER

- Time of year: March or April.
 - Fertilizer: To manufacturer's recommendations..
 - Manufacturer: To manufacturer's recommendations..
 - Product reference: To manufacturer's recommendations..
- 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: As appropriate to the species.
 - Trees: Favour a single central leading shoot.
- Arisings: Remove.