

# GALLAGHER DEVELOPMENTS

## BIDDULPH PROPERTY INVESTMENTS LTD

### SOFT LANDSCAPE SPECIFICATION

ADP Job No. W1503

PRESENTED BY:

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**Note:**

Identification numbers for clauses which have been added to, or which deviate from, the standard National Building Specification are shown in ***bold italics***.

## Q30 SEEDING

### GENERAL INFORMATION/REQUIREMENTS

#### 115 SEEDED AREAS:

- A healthy, vigorous grass sward is to be developed, free from the visible effects of pests, weeds and disease.
- The appearance to be a closely knit, continuous ground cover of even density, height and colour.

#### 121 CLIMATIC CONDITIONS:

- General: Carry out the work while soil and weather conditions are suitable.
- Seeding: Carry out April to October.

#### 131 MACHINES AND TOOLS:

- Use only machinery and tools suitable for the site conditions and the work to be carried out.
- Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.

#### 145 WATERING:

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

#### 150 WATER RESTRICTIONS:

- 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
  - Application of herbicide
  - Application of fertiliser
  - Preparation of seed bed
  - Seeding or turfing
  - Each site visit during maintenance period.

#### 171 SETTING OUT:

- Mark boundaries of seeding areas clearly, in straight lines or smoothly flowing curves as shown on drawing(s), and obtain approval from Landscape Architect before starting work.

### PREPARATION

#### 205 PREPARATION MATERIALS GENERALLY:

- To be free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- Submit certificate for certified materials giving supply source, content analysis, confirmation of suitability for purpose and confirmation of absence of harmful substances:
  - Give notice before ordering or using certified materials.

#### 211 HERBICIDE FOR PLANTING AREAS:

- Type: Suitable for suppressing perennial weeds.
- Allow period of time to elapse as recommended by manufacturer before cultivation.

**223 PROPRIETARY SOIL CONDITIONER/AMELIORANT:**

- Manufacturer: The Scotts Company (UK) Limited  
Paper Mill Lane  
Bramford  
Ipswich  
Suffolk IP8 4BZ  
Tel: 0871 220 5353
  - Product reference: Sportsmaster Preseeder PS5
- Apply evenly over grass seed/turf bed at 50 gms per m<sup>2</sup> immediately before cultivation, in accordance with manufacturer's instructions.

**231 PEAT:**

- Do not use peat or products containing peat.

**250 CULTIVATION:**

- Break up compacted topsoil to full depth.
- Fully incorporate soil ameliorant/conditioner/fertiliser into topsoil to a depth of 150 mm.
- Reduce top 100 mm of all topsoil to a tilth suitable for blade grading, particle size 10 mm (maximum).
- Remove stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and debris brought to the surface during cultivation.

**260 GRADING:**

- Topsoil condition to be reasonably dry and workable.
- Contours to be smooth and flowing, with falls for adequate drainage. Remove minor hollows and ridges.
- Finished levels after settlement to be 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 150 mm.
- Give notice if the required levels cannot be achieved by movement of the existing soil.

**280 FINAL CULTIVATION:**

- Timing: After grading and fertilising.
- Reduce seed bed to a 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 stone/earth clods exceeding 25mm in general areas and 10 mm in fine lawn areas.
- Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

**SEEDING****311 GRASS SEED FOR WILDFLOWER AREAS:**

- Supplier: British Seed Houses  
Camp Road  
Witham St Hughs  
Lincoln  
Lincolnshire  
LN6 9QJ  
Tel: 01522 868714
  - Mixture reference: WFG4 Neutral Soils
  - Rate of application: 5g/m<sup>2</sup>

**312 GRASS SEED FOR ECOLOGICAL GRASS AREAS:**

- Supplier: British Seed Houses  
Camp Road  
Witham St Hughs  
Lincoln  
Lincolnshire  
LN6 9QJ  
Tel: 01522 868714
- Mixture reference: WFG9 Wet Grassland
- Rate of application: 5g/m<sup>2</sup>

**313 GRASS SEED FOR VERGE AND LAWN AREAS:**

- Supplier: British Seed Houses  
Camp Road  
Witham St Hughs  
Lincoln  
Lincolnshire  
LN6 9QJ  
Tel: 01522 868714
- Mixture reference: A22 Low Maintenance
- Rate of application: 35 g/m<sup>2</sup>

**320 QUALITY OF SEED FOR ALL AREAS:**

- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties to EC purity and germination regulations and the Department for Environment, Food and Rural Affairs Higher Voluntary Standard. When requested, submit an Official Seed Testing Station certificate of germination, purity and composition.
- Submit samples of mixtures when requested.

**330 SOWING GRASS SEED:**

- Establish good seed contact with the root zone to promote healthy, consistent growth.
- Method to suit soil type, proposed usage of grassed area, location and weather conditions during and after sowing.

**CUTTING****531 FIRST CUT OF WILDFLOWER AREAS  
(BRITISH SEED HOUSES REF WFG4 AND WFG9):**

- Autumn sown:
  - Cut to 7cm if required during March-April (no later than the end of April).
- Spring sown:
  - Cut to 4-7cm after flowering during August-October (NB: a late spring sowing will result in later flowering).
- Before cutting, remove debris, litter and all stones and earth clods larger than 25 mm in any dimension.
- Mower type: Sharp five bladed cylinder box mower.
- Spread evenly over cut areas.

**532 FIRST CUT OF VERGE AREAS:  
(BRITISH SEED HOUSES REF A22):**

- Cut lawns when grass reaches scheduled height of initial growth (50 mm) and is reasonably dry.
- Before cutting, remove debris, litter and all stones and earth clods larger than 25 mm in any dimension.
- Height of first cut: 25 mm
- Mower type: Sharp five bladed cylinder box mower.
- Remove arisings from site or spread evenly over cut areas as scheduled.

**590 CLEANLINESS:**

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

**MAINTENANCE**

**606 MAINTENANCE:**

- Make visits at approximately monthly intervals during the growing season and as necessary to fulfil the requirements of this specification and the bills of quantity or maintenance schedule in section Q35/36.

**611 FAILURES OF SEEDING PRE-PRACTICAL/SUBSTANTIAL COMPLETION:**

- Bare areas, areas of dead grass and wildflowers that have failed to thrive, which are apparent during the period stated in clause Q30 606, will be regarded as defects due to materials or workmanship not in accordance with the Contract and must be made good by recultivation and reseeding/returfing at times agreed with the Landscape Architect, to comply with the original specification, including all ameliorants, at no extra expense.

**612 FAILURE OF SEEDING AFTER PRACTICAL/SUBSTANTIAL COMPLETION:**

- See clause Q60 47.

**619 MAINTAINING WILDFLOWER AREAS:  
(BRITISH SEED HOUSES REFS WFG4 AND WFG9):**

- Before each cut remove litter and debris.
- Autumn sown:
  - Cut to 4-7cm during September-October to prevent grasses and annuals out completion perennial species.
  - Thereafter, cut to 4-7cm during March-April to remove excess grass and to 4cm during September-October after flowering.
- Spring sown:
  - Cut to 4-7cm during March-April to remove excess grass.
  - Thereafter, cut to 4cm during September-October after flowering.
- At the time of each cut, trim all grass edges, including round the base of trees, manholes, etc.
- Remove arisings.
- Watering: As clause Q30 145.

**620 MAINTAINING LAWN AND VERGE GRASSED AREAS:  
(BRITISH SEED HOUSES REF A22):**

- Maximum height of growth at any time to be 50mm.
- Before each cut, remove all litter and debris.
- As and when necessary when grass is reasonably dry, to a height of 25 mm
  - Mower type: Sharp five bladed cylinder box mower.
  - Arisings: Remove from site or spread evenly over cut areas as scheduled. Sweep all adjoining hard areas clear of cuttings and remove.
- Do not cut bulb planting areas until bulb foliage has died down.
- At the time of each cut, trim all grass edges, including round the base of trees, manholes, etc. and remove arisings.
- Keep the sward substantially free of broad leaved weeds by applying a suitable selective herbicide.
- Regularly remove stones brought to the surface
- Make good areas of settlement.
- Watering: As clause Q30 145.

**621 MAINTENANCE POST-PRACTICAL/SUBSTANTIAL COMPLETION:**

- Areas are to be maintained in accordance with the maintenance operations, schedules and tables described in sections Q35/36 until the end of the Defects Liability Period, which will operate for a full 12 months from the date of acceptance of Practical Completion for all landscape works.

**680 MAINTENANCE FERTILISER FOR LAWN AND VERGE GRASSED AREAS**

- March application: 15:10:10 Spring turf fertiliser at 35 g/m<sup>2</sup>.
- September application: 5:10:10 Autumn turf fertiliser at 50 g/m<sup>2</sup>.

## Q31 EXTERNAL PLANTING

### GENERAL INFORMATION/REQUIREMENTS

#### 110 TOPSOIL:

- At the time of starting the subcontract work, the areas to be planted will be covered by topsoil 300 mm thick, provided and spread by the Main Contractor.

#### 111 SUITABILITY OF TOPSOIL:

- Before commencing work the Landscape Contractor must confirm (through the Main Contractor) to the Landscape Architect that the topsoil, after the specified preparation, will be suitable for planting.
- Planting will be taken as further acceptance by the Main Contractor and the Landscape Contractor of the suitability of topsoil.
- NB: Wildflower areas to be planted on 150 mm depth subsoil.

#### 112 SUITABILITY OF GROWING MEDIUM:

- Before commencing work, the Landscape Contractor must confirm (through the Main Contractor) that the growing medium after amelioration will be suitable for planting.
- Planting will be taken as further acceptance by the Main Contractor and Landscape Contractor of the suitability of topsoil.

#### 113 SITE CLEARANCE:

- General: Remove rubbish, concrete, metal, glass, decayed vegetation, contaminated topsoil
- Stones: Remove those with largest dimension exceeding 75 mm.
- Contamination: Substances injurious to plant growth including subsoil, rubble, fuel and lubricants.
- Vegetation: Remove except when instructed otherwise.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Apply a suitable non-residual herbicide to all areas to be planted and seeded.

#### 115 SITE CLEARANCE FOR AQUATIC/ MARGINAL PLANTING:

- Clearance:
  - Remove loose debris and rubbish including paper, plastics, concrete, brick, timber, metal and glass.
  - Remove material contaminated with substances injurious to plant growth including rubble, fuel and lubricants.
  - Remove all existing vegetation and algae, unless instructed otherwise.

#### 118 SOIL CONDITIONS:

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

#### 120 CLIMATIC CONDITIONS:

- Carry out the work while soil and weather conditions are suitable.
- Do not plant during periods of frost or in strong winds.



**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 aquatic and marginal): September/October or March/April.
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.
- 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 MACHINES AND 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
  - Application of herbicide
  - Application of fertilizer
  - Delivery of plants/trees
  - Planting of shrubs
  - Planting of trees into previously dug pits
  - Watering
  - Each site visit during maintenance period.
- Period of notice: Two days, to give the CA the opportunity of being present.

**165 PREPARATION, PLANTING AND MULCHING MATERIALS:**

- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life, except as specified elsewhere.
- Certified materials: For each of the following materials submit a certificate giving supply source, content analysis, confirmation of suitability for purpose and confirmation of absence of harmful substances: Sewage sludge.
  - Give notice before ordering or using.

**200 TREES/PLANTS GENERALLY:**

- 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: To the requirements of the National Plant Specification. and balanced with branch system.
- Species: True to name.
- Origin/Provenance: British.
- Origin and Provenance have the meaning given in the National Plant Specification.

- 210 BRITISH STANDARDS FOR TREES/PLANTS:** All plants will comply with the minimum requirements of the relevant BS and to the requirements of this specification:
- |                        |   |
|------------------------|---|
| BS 4043 : 1989         | Extra heavy standard, heavy standard trees<br>3.6m high and over          |
| BS 8936 Part 1 : 1992  | Selected standards, standards, feathered trees<br>under 3.6m high, shrubs |
| BS 3963 Part 4 : 1984  | Forestry transplants  |
| BS 3963 Part 10 : 1989 | Ground cover plants   |

- 211 CLEAR STEMMED TREES:** Standard trees will have the following dimensions:

	STEM CIRCUMFERENCE	OVERALL HEIGHT FROM GROUND LEVEL
Extra heavy standard	14-16 cms	450-500 cms

The trees will have a sturdy, straight stem with a minimum clear height from ground level to the lowest branch of 1.8 m.

The stem circumference will be measured at 1 m above ground level.

According to the species and the specification, the tree will have either a well defined straight upright central leader with branches growing out from the stem with reasonable symmetry, or will have a well-balanced, branching head

**215 TREES/PLANTS – SPECIFICATION CRITERIA:**

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

**219 FEATHERED TREES:**

- Feathered trees will have a well defined, straight, upright central leader and a stem well furnished with lateral shoots to near ground level.
- Transplanted at least once.
- Height: As specified.

**222 SHRUBS:**

- Shrubs will be well grown, bushy, healthy, well established nursery specimens of good form and true strain, and be furnished with a good fibrous root system and a minimum of five laterals.
- Height of plants and size of containers: As specified.

**223 HEDGE PLANTS:**

- Hedge plants will be supplied as for shrubs but to the size and description specified and will be consistent in type, strain and form to ensure a uniform hedge.  
Note: Each hedge plant to have a minimum of five laterals.

**224 HERBACEOUS AND AQUATIC PLANTS:**

- To be well rooted, healthy and hardy, with not less than one year of full growth.

**235 CONTAINER GROWN PLANTS/TREES:**

- Growing medium: With adequate nutrients for the plants to thrive until permanently planted.
- Plants: Centred in the container, firmed and well watered.
- Root growth: Substantially filling the container, 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 tree/plant or group of trees/plants of a single species or cultivar with supplier's labelling for delivery to site, showing:
  - The full botanical name
  - Total number
  - Number of bundles
  - Part bundles
  - Supplier's name
  - Employer's name and project reference
  - Plant specification, in accordance with the scheduled National Plant Specification categories

**246 LABELLING AND INFORMATION:**

- Standard: To BS 3936.

**251 SUPPLY OF TREES/PLANTS:**

- Suppliers: Members of the Horticultural Trades Association Nursery Certification Scheme.

**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.
- Further alternatives: Proposed substitutions may not be acceptable and submission of further alternatives may be required.
- Approval: Obtain before making any substitution.

**265 PLANT/TREE HANDLING STORAGE AND TRANSPORT:**

- Standard: To CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.
- Protect plants/trees from frost.
- Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Black polythene bags or black interior, white exterior.
- Packaging of bulk quantities: Pallets shrink wrapped with polythene.

**270 PLANTING GENERALLY:**

- Standard: To CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
- Appearance: Plant 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 or sealant: Do not apply unless instructed.

**285 PROTECTION OF EXISTING GRASS:**

- General: Protect areas affected by planting operations using bards/tarpaulins. Do not place excavated or imported materials directly on grass.

**290 SURPLUS MATERIAL:**

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

## PREPARATION OF PLANTING BEDS/PLANTING MATERIALS

### 300 HERBICIDE:

- Locations: All areas to be planted.
- General: Prevent weeds from seeding and perennial weeds from becoming established, by applying a suitable herbicide.
  - Delay cultivation as recommended by manufacturer.

### 305 WEED CONTROL:

- Locations: All areas to be planted.
- General: Prevent weeds from seeding and perennial weeds from becoming established, by spraying and hand weeding.

### 336 GENERAL SOIL CONDITIONER:

- Manufacturer: Melcourt Industries Ltd, Eight Bells House, Tetbury, Glos GL8 8JG.
  - Product reference: 'Topgrow'.
- Apply evenly over all planting areas at 10 litres/m<sup>2</sup> and work into topsoil cultivations.
- Or equal approved.

### 337 GENERAL SOIL CONDITIONER:

- Manufacturer: Melcourt Industries Ltd, Eight Bells House, Tetbury, Glos GL8 8JG.
  - Product reference: 'Topgrow'.
- Apply at 80/20% soil/compost mix to backfill material to planting pits.
- Or equal approved.

### 341 PEAT:

- Peat or products containing peat: Do not use.

### 358 SLOW RELEASE FERTILIZER:

- Manufacturer: The Scotts Company (UK) Limited, Paper Mill Lane, Bramford, Ipswich, Suffolk IP8 4BZ. Tel (01473) 830492.
  - Product reference: Enmag.
- Or equal approved.
- Apply evenly over all planted areas at a rate of 100 gms per m<sup>2</sup> or 25 gms per pit and work into topsoil cultivations.

### 361 ROOT DIP:

- Manufacturer: Agricultural Polymers Ltd, Waverley House, Waverley Road, Gloucester GL2 0SZ.
  - Product reference: Broadleaf Root Dip.
- Or equal approved.
- Apply to root stems or all bare root stock by sustained soaking in a tank containing a 1:3 dip:water solution immediately prior to planting.

### 362 WATER STORING POLYMER:

- Manufacturer: Agricultural Polymers Ltd, Waverley House, Waverley Road, Gloucester GL2 0SZ.
  - Product reference: Broadleaf P4.
- Or equal approved.
- Place polymer in planting pits around the plant roots at a rate of 25 gms per pit.
- DO NOT MIX WITH GENERAL CULTIVATIONS.

**375 CULTIVATION:**

- Compacted topsoil: Break up to full depth.
- Cultivation: Loosen, aerate and break up the soil into particles of 2-8 mm.
  - Depth: Top 200 mm of planting beds.
  - Timing: Within a few days before planting.
  - Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even
- Levels:
  - Within 50 mm of levels specified on drawings.
- Undesirable material brought to the surface: Remove, including weeds, roots, stones and clods larger than 50 mm in any dimension, tufts of grass and foreign matter.
- Do not dig or cultivate within the root spread of trees and shrubs to be retained.

**PLANTING SHRUBS****406 SHRUB PLANTING PITS:**

- Excavate planting holes 150 mm wider and deeper than root spread.
- Plant to nursery line and backfill with ameliorants as specified.

**416 CONIFERS/EVERGREENS:**

- Thoroughly soak root systems in water prior to planting and after planting.

**435 CLIMBING PLANTS USED AS GROUND COVER:**

- Planting: Remove canes or other supports. Spread stems, pinning to ground where appropriate to ensure good contact to encourage rooting and early establishment.

**457 PLANTING AQUATIC/ MARGINAL PLANT PLUGS:**

- Keep plants watered and in shade until planted. Do not allow to dry out.
- Remove coarse weeds etc. from planting sites.
- Planting sites: As indicated on drawing.
- Do not puncture waterproofing membrane below soil.
- Plant into a hole to suit plug size and shape. Create a cleft at bottom of hole to improve rooting. Gently firm plant into hole to ensure good root hold into substrate.

**459 NOTCH PLANTING BARE ROOT AQUATIC PLANTS:**

- Make a vertical 'I', 'L', 'T' or 'H' notch, deep enough to accommodate full depth of roots.
- Do not puncture waterproofing membrane below soil.
- Insert plant at specified water depth, close notch and firm surrounding soil to ensure good root hold into substrate.

**476 BACKFILLING MATERIAL:**

- Backfill planting stations with topsoil and ameliorants as specified.

**481 AFTER PLANTING:**

- Water plants thoroughly immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants.
- Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle cambers and no hollows.

**486 MULCHING PLANTING BEDS:**

- Manufacturer: Melcourt Industries Ltd
  - Product reference: Conifer bark 'Spruce Ornamental'
  - Colour: Natural.
- Or equal approved.
- Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds to a depth of 50 mm with specified bark mulch, as indicated on the drawings.

## PLANTING TREES

### 500 ANTIDESSICANT FOR CONIFERS/EVERGREENS:

- Manufacturer:
  - Product reference: Broadleaf Root Dip.
- Application: Dip in or thoroughly spray with antidesiccant before delivering to site. Apply again soon after planting.
  - Do not apply in rainy or frosty weather.
  - Ensure full coverage of underside of foliage.

### 506 TREE PITS:

- Excavate with slightly raised centre. Retain topsoil for re-use where specified. In sloping ground, maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Excavate to the following minimum dimensions:

Tree type	Area of pit	Depth of pit
Extra heavy standard	1500x1500 mm	950 mm
Feathered (1.8-2.4m high)	900x900 mm	450 mm

- Break up bottoms of pits to a depth of 100 and scarify sides.
- Backfilling material: Topsoil excavated from the pit and additional topsoil as required mixed thoroughly with other ingredients prior to planting in the following quantities for each size of tree:

Tree type	Soil/compost %	Fertilizer (gms)	Water storing polymer (gms)
Extra heavy std.	*	300	1000
Feathered (1.8-2.4 m high)	*	100	150

\* 50:50 on sandy soil

Water storing polymer may not be necessary on naturally damp soils, i.e. heavy clays.

### 520 TREE TIES:

- Manufacturer: J Toms Ltd
  - Product reference: Toms Tree Ties
  - Or equivalent approved.
- Method of fixing: Expanding Rubber Belt (B3)
- Type: Toms Standard Pad (01)
- Other requirements: Mechanism to have adjustable buckle, not nails.

### 536 STAKING GENERALLY:

- Stakes: Pressure impregnated softwood (not creosote or tar), round or half-round as specified, straight, peeled, free from projections and pointed at one end.
  - Size: Minimum length and thickness as shown in the table overleaf:-

Tree type	Description of stake (SHORT LENGTH)				
	Min. dia.	Total length	Height above ground	No. per tree	No. of ties per stake
Extra heavy std.	125 mm	2.0 m	600mm	2*	1
Feathered	50 mm	1.6 m	600mm	1	1

\*stakes may be half-round (once split) if preferred.

### 586 BACKFILLING MATERIAL:

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required, together with:
  - Ameliorant/conditioner: Water-storing polymer.

**590 MULCHING TREES:**

- Material: Conifer bark 'Spruce Ornamental'
  - Purity: Free of pests, disease, fungus and weeds.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: 600 mm diameter at 1 cu m of material per 20 m<sup>2</sup>.

**595 TREE PROTECTION:**

- Manufacturer: J Toms Ltd.
  - Product reference: Rabbit Guards.
  - Type: Spiral Rabbit Guard.
- Size/Colour: 750 mm: Brown.
- Support: Bamboo cane.
- General: Ensure that protection methods do not impede the natural movement of trees or restrict growth.

**PROTECTING/MAINTAINING/MAKING GOOD DEFECTS****711 MAINTENANCE:**

- General: Carry out the following operations from completion of planting until Practical/Substantial Completion or as instructed by the CA.
- Maintain a weed free area around each tree and shrub or entire bed in accordance with the schedule in Q36, minimum diameter the larger of 1 m or the surface of the original planting pit.
- Keep planting beds clear of weeds by hand weeding or spraying as scheduled. Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows, taking care not to reduce depth or effect of mulch.
- Ensure that trees and shrubs are not damaged by the use of mowers, nylon filament rotary cutters and similar powered tools.
- Every visit, as scheduled, check condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Cut back any damaged bark.
- Spray crown of trees when in leaf during warm weather. Carry out in the evening.

**720 FAILURES OF PLANTING:**

- General: Plants/trees/shrubs that have failed to thrive (unless due to theft or malicious damage after completion) during period stated in clause 711 will be regarded as defects due to materials or workmanship not in accordance with the Contract. 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: To be agreed with Landscape Architect.

**721 FAILURE OF PLANTS AFTER PRACTICAL / SUBSTANTIAL COMPLETION:**

- See clause Q60 45.

**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.

**751 PRE-PRACTICAL COMPLETION/SUBSTANTIAL COMPLETION:**

- Maintain individually completed areas in good condition and at no extra expense until acceptance of Practical/Substantial Completion.
- Make good any damage, theft, vandalism or otherwise defective work, including plant material deaths, which may occur.
- The failure of open grown plant material planted without approval outside the specified planting season will have to be replaced by the Contractor at his own expense with pot grown equivalents out of season, as necessary.

**752 POST PRACTICAL COMPLETION/SUBSTANTIAL COMPLETION:**

- Areas are to be maintained in accordance with the maintenance operations schedules and tables described in sections Q35/36 until the end of the Defects Liability Period, which will operate for five years from the date of acceptance of Practical Completion for all landscape works.
- Notify CA if at any time action is required to improve the condition of trees/shrubs/plants and grass or to prevent defects arising.
- At the end of this period an inspection will be made. Any defective or otherwise sub-standard work found and which is due to materials or workmanship not in accordance with the specification will be made good by the Contractor at no extra expense.

**753 VANDALISM:**

- The cost of reinstating any loss or damage resulting from theft or vandalism during the Defects Liability Period will be met by the Employer.
- Any claim in this connection must be lodged with the CA in writing at the earliest possible time and will be capable of proof that the damage has been so caused.
- Where work is to be reinstated, the cost will be determined where possible from rates quoted in the Schedule.

**780 MAINTENANCE INSTRUCTIONS:**

- General: Before the end of the period stated in clause 711, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year.



## Q35 LANDSCAPE MAINTENANCE

### GENERALLY

#### 110 NOTICE:

- Give notice before:
  - Application of herbicide.
  - Application of fertilizer.
  - Watering.
  - Each site maintenance visit.
- Period of notice: Three days.

#### 130 REINSTATEMENT:

- Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition.

#### 131 REINSTATEMENT:

- Damage or disturbance occurring during the work, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition and within a reasonable period of time (according to season and subject to suitable conditions prevailing, determined by the CA and as agreed with the Employer).

#### 156 WATERING

- Supply: Potable mains water.
- Quantity: Sufficient to ensure the full depth of topsoil is thoroughly watered.
- Application: Do not damage or loosen plants.
- Compacted soil: Loosen or scoop out, to direct water to root zone.
- Frequency: As necessary for the continued thriving of all planting. If watering is a provisional item, monitor the need for watering and advise the CA before commencing works.

#### 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.

#### 175 DISPOSAL OF ARISING:

- Generally: Unless specified otherwise, dispose of arisings as follows:
  - Remove from site.

#### 180 CHIPPING OR SHREDDING ON SITE:

- General: Not permitted on site.

#### 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 by using boards/tarpaulins. Do not place excavated or imported materials directly on to 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.

## SHRUBS/TREES/HEDGES

### 500 ESTABLISHMENT OF NEW PLANTING

- Duration: 12 months.
- Weed control:
  - Method: Keep planting beds clear of weeds by spraying and hand weeding.
  - 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.
- Trees: When in leaf, spray crowns in the evening during warm weather.

### 502 ESTABLISHMENT OF NEW PLANTING - FERTILIZER

- Time of year: March or April.
- Type: Enmag.
- Spreading: Spread evenly. Carefully lift and replace any mulch materials.
- Coverage:

Extra heavy standard	300 gms
Feathered (1.8-2.4 m)	100 gms
Shrubs	30 gms

### 510 TREE STAKES AND TIES:

- Inspection/maintenance times: Once in spring and once in autumn, as scheduled.
- 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 stakes and ties: After two years, or as directed by Landscape Architect.
- Remove redundant tapes, tags, ties, labels and other encumbrances.
- Fill stake hole(s) 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 the 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.
  - 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 sealant: Do not use unless instructed.

### 555 PRUNING TREES AND SHRUBS:

- Standard: BS 7370:Part 4, clauses 3.6.3 to 3.6.5.

**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: Extensive pruning of young trees and any surgery to larger trees must be carried out by an approved member of the Arboricultural Association or other approved specialist.

**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.

**590 PRUNING PARTICULAR SPECIES:**

- Species to be pruned to separate specific instructions: See ADP Pruning Schedule.

**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.

**625 CLIMBING PLANTS:**

- Pruning: Remove excess growth, to ensure that signs, light fittings, doors and windows are kept clear at all times.
- Insecure growth: Attach to supporting wires or structures using 1mm dia. black plastic coated steel wire.
- Supporting structures: Check and repair as necessary.

**630 REMOVE AND REPLACE DEAD PLANTS:**

- Removal: As soon as possible.
- Replacement: See Clause Q60 45.

**635 REINSTATEMENT OF SHRUB/HERBACEOUS AREAS:**

- Dead and damaged plants: Remove.
- Mulch/matting materials:
  - Carefully move any 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: Agree details of replacement plants with CA before ordering
- Dressing: Slow release fertilizer
  - Type: Enmag
  - Coverage: 100 g/sq m

**645 WEED CONTROL GENERALLY:**

- Weed tolerance: Planted beds to be completely weed free.
- Adjacent plants, trees and grass: Do not damage.

**650 HAND WEEDING:**

- General: Remove weeds entire, including roots.
- Disturbance: Remove minimum quantity of soil and disturb plants, bulbs and mulched surfaces as little as possible.
- Completion: Rake area to a neat, clean condition.
- Mulch: Reinstate to original depth.

**657 HERBICIDE TO KILL REGROWTH:**

- Type: Suitable foliar acting herbicide to kill regrowth.
- Timing: Allow recommended period for herbicide to take effect before clearing arisings.

**665 WEED CONTROL WITH WINTER HERBICIDE:**

- Type: Suitable residual soil acting herbicide.
- Time of year: Unless otherwise agreed with the CA, complete before end of March.
- Timing: Allow the recommended period before clearing arisings.

**670 WEED CONTROL WITH SUMMER HERBICIDE:**

- Type: Suitable foliar acting herbicide.
- Timing: Allow the recommended period before clearing arisings.

**690 MAINTENANCE OF LOOSE MULCH:**

- Thickness (minimum): 25 mm.  
- Top up: With Conifer Bark 'Spruce Ornamental' natural colour mulch from Melcourt Industries Ltd.
- 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 or herbicide application.

**696 FERTILIZING ESTABLISHED TREES AND SHRUBS:**

- Type of fertiliser: Enmag
- Coverage: Spread evenly.  
- Rate: As follows:-

Extra Heavy Standard	300gms
Feathered (1.8 -2.4m)	100gms
Shrubs	30gms

## Q36 LANDSCAPE MAINTENANCE SCHEDULE

### 10 HAND WEEDING:

- At regular intervals as indicated, hand weed all amenity planting beds in the car park and approach to the main entrance, collecting up all arisings and litter (including extraneous rubbish) and removing from site, and rake all mulched areas level.
- Allow for 12 visits.

### 15 EDGING OF BEDS:

- Edge all beds to leave a clean, straight edge against all footpaths and grass areas:
- Allow for 2 visits.

### 20 PRE-EMERGENT HERBICIDE:

- Unless otherwise instructed, apply pre-emergent herbicide to all shrub beds at manufacturer's recommended rates and by approved means.
- Allow for 1 visit.

### 25 HERBICIDE (FOLIAR):

- Unless otherwise instructed, apply glyphosate herbicide at manufacturer's recommended rates and by approved means.
- Allow for 5 visits for mulched areas.
- Allow for 10 visits for bare earth areas.

### 30 FERTILIZER:

- Top dress with fertilizer at the end of the Maintenance Period in accordance with Clause Q31 358.
- Allow for 2 visits.

### 35 PESTS AND DISEASES:

- Unless otherwise instructed, spray all shrub beds to combat pests and diseases, at manufacturer's recommended rates and by approved means.
- Allow for 2 visits.

### 40 STAKES / TIES:

- Adjust and repair stake/ties, as necessary.
- Allow for 2 visits.

### 71 WATERING: (PROVISIONAL ITEM)

- Allow for watering as per specification throughout the Maintenance Period.
- Allow for 6 visits.

### 81 HERBICIDE (RESIDUAL):

- Immediately prior to the end of the Maintenance Period, hand weed and tidy site and remove arisings from site.
- Apply 'Kerb 50W' residual herbicide to all shrub beds at manufacturer's recommended rates and times, by approved means.
- Allow for 1 visit.

### 90 MOWING WILDFLOWER/ECOLOGICAL GRASS SEEDED AREAS :

- Mow seeded areas in spring and autumn, as instructed in section Q30.
- Allow for 2 visits.

### 95 MOWING VERGE AND LAWN AREAS:

- Cut verges and lawns throughout the summer as specified in section Q30, and remove all arisings from site.
- Edge all grassed areas to leave a clean, straight 30 mm deep edge, removing arisings from site.
- Allow for 10 visits.

**101 MULCHING OF AMENITY AREAS:**

- At the end of the Maintenance Period, top up all amenity planting with 50 mm depth bark mulch and rake level, as per specification.
- Allow for 1 visit.

**102 MULCHING OF STRUCTURE AREAS:**

- At the end of the Maintenance Period, top up remaining areas of structure planting with 25 mm depth bark mulch and rake level, as per specification.
- Allow for 1 visit.

**NOTE:** The successful contractor will be asked to provide a maintenance table at Practical Completion, illustrating when the above visits will be undertaken, for agreement with the Landscape Architect.

## Q60 PRACTICAL COMPLETION & DEFECTS LIABILITY PERIOD

### LANDSCAPE WORKS SECTION

#### GENERAL REQUIREMENTS

- 10 PRE-PRACTICAL COMPLETION / SUBSTANTIAL COMPLETION:**  
Maintain individually completed areas in good condition and at no extra expense until acceptance of Practical Completion. Make good any damage, theft, vandalism or otherwise defective work, including plant material deaths, which may occur. The failure of open grown plant material planted without approval outside the specified planting season, will have to be replaced by the contractor at his own expense with pot grown equivalents out of season, as necessary.
- 20 POST PRACTICAL COMPLETION / SUBSTANTIAL COMPLETION:**
- Areas are to be maintained in accordance with the maintenance operations described in sections Q35/36 and as set out in the maintenance tables until the end of the Defects Liability Period, which will operate for a full 12 months from the date of acceptance of Practical Completion for all landscape works.  
**NB:** 24 months for advanced stock trees.
  - Notify the Landscape Architect if at any time action is required to improve the condition of trees/shrubs/plants and grass or to prevent defects arising. At the end of this period an inspection will be made. Any defective or otherwise sub-standard work found and which is due to materials or workmanship not in accordance with the specification will be made good at no extra expense.
- 30 VANDALISM:** The cost of reinstating any loss or damage resulting from theft or vandalism during the Defects Liability Period will be met by the Employer. Any claim in this connection must be lodged with the project supervisor in writing at the earliest possible time and will be capable of proof that the damage has been so caused. Where work is to be reinstated the cost will be determined where possible from rates quoted in the Schedule.
- 40 MAINTENANCE GENERALLY:** is to include fertilizing, watering, cutting, pruning, firming, adjusting stakes/ties/guards, applying approved chemicals to combat pests/diseases, keeping plant beds regularly clear of weeds, and removal of all rubbish.
- Any pavings, structures and equipment will be maintained in accordance with manufacturer's recommendations and/or to standards which are acceptable to the Landscape Architect, in accordance with Sections Q35 and Q36.

#### MAKING GOOD DEFECTS

- 45 REPLACEMENT PLANTS:**
- Make allowance for replacing and replanting at no extra expense any tree/shrub/plant that may fail to thrive during the Maintenance and Defects Liability Period (with exception of plants that fail as a result of malicious damage or theft), including those plants found to be incorrect varieties from those specified. Replacement plants will, unless agreed otherwise, conform to those species originally specified and planted as per the specification to include all ameliorants. Replanting must be carried out as soon as practicable during the planting season immediately following the initial planting. A complete replacement schedule will be drawn up and agreed at the end of the Maintenance and Defects Liability Period.
  - Give the Landscape Architect 48 hours notice of intention to commence replacement planting and notify him on completion.

## MAKING GOOD DEFECTS

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### RE-SEED:

- Make allowance for re-seeding at no extra expense bare areas and areas of dead grass which become apparent during the Maintenance and Defects Liability Period (with the exception of areas which fail as a result of malicious damage or theft), including those areas affected by excessive subsidence. Re-seeding must be carried out immediately following the initial seeding and will include all necessary regrading and cultivations as may be required.