02
SOFT LANDSCAPE SPECIFICATION

Client: Spirotech
Location: Oakwood, Sawtry
Prepared by: OLA
To be used in conjunction with the Landscape Maintenance Schedule

CONTENT

SECTION 1 GENERAL INFORMATION/REQUIREMENTS
01 – SEEDING/TURFING
02 – EXTERNAL PLANTING
03 – LANDSCAPE MAINTENANCE

WORKMANSHIP - General Information/Requirements
Workmanship shall comply with the recommendations set out in the following codes: -
a) General landscape operations - to BS 4428:1989.
b) Trees in relation to construction - to BS 5837:2005 and BS 6549:1990.
c) Workmanship shall also comply with British Standard 8000 and any other current relevant British Standard Code of Practice where such exists. Workmanship shall in any case be in accordance with good horticultural practice.

BRITISH STANDARDS
All workmanship and materials shall conform to the following codes: -
General Landscape Operations (excluding hard surfaces) BS 4428:1989
Trees in Relation to Construction – BS 5837: 2005 and BS 6549:1990. BS 3998: 2010 (recommended for tree works) unless otherwise specified.
Arboricultural Association – Standard Conditions of Contract and Specifications of Tree Works 1996.
BS 8545:2014 Trees from Nursery to. Independence in the Landscape
Nursery Stock in accordance with latest horticultural trade association nursery stock specification entitled “National Plant Specification 2001”
Plants shall conform to:
BS 3969- 1: 1992 Nursery Stock – Specification for Trees and Shrubs
BS 3969- 2: 1990 Nursery Stock – Specification for roses + AMD 6628
BS 3969- 5: 1985 Nursery Stock – Specification for poplars and willows.
BS 3936- 9: 1998 Nursery Stock – Specification for bulbs, corms and tubers.
BS 3936- 10: 1990 Nursery Stock – Specification for ground cover shrubs.

CPSE - Committee for Plant Establishment, Handling and establishing landscape plants 1996, Part 3, paragraphs 6.2 to 6.6.
Glossary for Landscape Works BS 3975 Pt 4: 1966
Turf – BS 3969:1998- recommendations for turf for general purposes.
Topsoil- BS 3882: 2007
Pesticides: Control of Pesticides Regulations 1997;
The Health and Safety at Work Act 1974;
COSHH Regulation 2003, the product COSHH sheet water Supply (Water Quality) Regulations amended 1991; Control of Pollution Act 1974; Hedgerow Act 1997; Wildlife and Countryside Act 1981.

EXISTING TREES/HEDGES ETC.

Adequately protect existing shrubs, trees, hedges and grassland to be retained.

WORK NEAR TREES

To BS 5837 Trees in relation to construction.

PESTICIDES

The use of all pesticides should only be made following a risk assessment to consider potential effects on the environment and on human health. The purchase, transport and storage of herbicides are regulated by Part III of the Food and Environment Protection Act 1985, Control of Pesticides (Amendment) Regulations 1997; the Health and Safety at Work Act 1974; the latest COSHH Regulations (2008), the product COSHH sheet and EC Directive 91/414/EEC (the "Authorization Directive") and the Plant Protection Products Regulations 1995 as amended by the Plant Protection Products (Basic Conditions) Regulations 1997.

TOPSOIL

Topsoil to comply with BS 3882. Any source of topsoil will be a well-structured, clay loam, "as dug" soil with an independent soil analysis backed up with certification of conformity including all current environmental agency legislation and British Standard 3882 (Appendix A).
Topsoil shall be investigated carefully, with respect to its suitability for the intened use by a member of the grounds team. This process should be carried out by sending/delivering a 1l soil sample roughly 2 weeks before work is due to commence.
Soil shall not be handled in inappropriate conditions of weather and soil moisture i.e.

- During or shortly after heavy precipitation
- When soil is in a waterlogged condition
- When the ground is frozen or covered by snow
- When there are pools of water on the grounds surface

The rooting depth shall normally be 450mm for grass, 600mm for shrubs and 900mm for trees. This will comprise of both topsoil and subsoil, the depth of topsoil spread shall not normally exceed 300mm.
Stockpiling of soil shall be avoided whenever possible to minimise loss of physical quality, diffusion of oxygen and biological activity.
Any stockpiling shall be sited to avoid risk of muddy water run-off into a watercourse. The site of the stockpile will be prepared in advance by grading, removing rubbish and ensuring no fuel or chemicals were previously.
The topsoil should be turned over, levelled, lightly consolidated and free from surface stone, other debris and perennial weeds.

SUBSOIL

Before receiving topsoil, subsoil shall be loosened using appropriate equipment; this shall be done when the subsoil is dry to encourage soil shattering.
The depth of the cultivation shall be checked by an ESS Grounds representative to ensure the desired result is achieved.
All stones and other objects larger than 50mm shall be removed from the prepared surface.
The loosened subsoil shall be roughly levelled so that an even depth of topsoil can be achieved.

SEEDING/TURFING - General Information/Requirements

To be read with Preliminaries/General conditions.

1.01 - TOPSOILING

- At the time of starting the seeding/turfing works all areas to be seeded or turfed will be covered by: Either 150mm depth topsoil free of vegetation or undisturbed topsoil prepared as necessary by others
- The topsoil should be turned over, levelled, lightly consolidated and free from surface stone, other debris and perennial weeds.

1.02 - SUITABILITY OF TOPSOILING

- The Landscape Contractor shall liaise with the Main Contractor during preparation of formation level and topsoiling.
- Prior to starting work the Contractor shall inspect areas to be seeded or turfed to satisfy himself that after the specified preparation the topsoil will be suitable for seeding/turfing.

1.03 - SEEDED AND TURFED AREAS

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

1.04 - CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable.
- Appropriate seasons: Turfing - mid-September to mid-April.

1.05 - WATERING

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

1.06 - WATER RESTRICTIONS

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

PREPARATION - General

1.07 - HERBICIDE FOR GRASSED AREAS

- Type: Suitable herbicide for suppressing of perennial weeds.
- Timing: Allow a period of time to elapse, as recommended by the manufacturer, before commencing cultivation.
- Notify the Contract Administrator of the type of herbicide to be used and when application is to be carried out.

1.08 - PEAT

Peat or products containing peat: Do not use.

1.09 - CULTIVATION

- Compacted topsoil: Break up to full depth.
- Tilth: Reduce top 100mm of topsoil to a tilth suitable for blade grading, particle size 10mm (maximum) and remove all weed growth.
- Material brought to the surface: Remove stones and clay balls larger than 50mm in any dimension, roots, tufts of grass, rubbish and debris.

1.10 - GRADING

- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
- Finished levels after settlement: 25mm above adjoining paving, kerbs, manholes etc.
- Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150mm.

Give notice: If required levels cannot be achieved by movement of existing soil.

1.11 - FERTILIZER SEEDED AND TURFED AREAS

- Type: Pre-seeding.
- Manufacturer: Scotts Professional or similar approved.
- Product reference: Pre-seeding fertiliser or equivalent.
- Application: Before final cultivation and three to five days before seeding/turfing.

Rate: Spread evenly at 50 gms/m² or in accordance with manufacturer's recommendations

1.12 - FINAL CULTIVATION

- Timing: After grading and fertilizing.
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

TURFING - Generally

- Turf will not be laid when soil is frost covered, frozen or when the ground is waterlogged. If more than one pallet is on site, turf will be drawn equally from each pallet as work progresses so as not to leave one pallet substantially drier than the others.
- Planks should be placed on newly-laid turf for walking along and working from.
- Ensure complete contact between soil and the underside of each turf, if necessary; use the head of a rake held vertically and press ("tamp") this against the turf.
- Use a whole turf at any edges.
- Trim turf with edging shears or a half moon.
- Finished grass levels are to be 40mm above surrounding kerbs, paving and plant bed edges.
- Start watering on the day turf is laid. On hot days, watering may need to commence prior to laying all the turf.
- On completion of turfing, the whole of the turfed areas shall be top dressed to a depth of 10mm with fine sifted soil, and well brushed in.
- Turfed areas shall receive a top dressing of slow-release nitrogen fertilizer in the spring, using fine turf fertilizer evenly applied at a rate of 25gm/m2.

1.13 - CULTIVATED TURF FOR GENERAL AREAS

- Supplier: To be confirmed or suitable alternative with Contract Administrator.
- Product reference: To be confirmed or suitable alternative to be agreed with Contract Administrator. Properties of soil used for turf production: to manufacturer's specification.

1.14 DELIVERY AND STORAGE

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

Dried out or deteriorated turf: Do not use.

1.15 - DRESSING FOR TURF
- Type: Sandy loam.
- Supplier: To be confirmed
- Product reference: To be confirmed or similar approved.
- Additional analyses: Not required.
- Application rate: In accordance with manufacturer's instructions.
Timing: Apply prior to cultivation.

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

PROTECTING/CUTTING

1.17 - FIRST CUT OF GRASSED AREAS
- Timing: When grass is reasonably dry.
- Height of initial growth: 50-75mm.
- Preparation:
- Debris and litter: Remove.
- Stones and earth clods larger than 25mm in any dimension: Remove
- Height of first cut: 30mm.
- Mower type: Contractor's choice.
Arisings: Remove from site.

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

MAINTENANCE - Generally
The Contractor shall physically maintain the whole of the soft landscape works within the contract boundaries in accordance with the Contract Documentation.
The period of maintenance will be twelve months following Practical Completion.

1.19 - MAINTENANCE UP TO PRACTICAL COMPLETION
- Duration: From the completion of seeding and turfing until the date of Practical Completion.
All turfed and seeded areas shall be maintained in accordance with the requirements section 03

1.20 - MAINTENANCE
- Duration: Carry out the operations in section 03 from completion of seeding/ turfing for twelve months from Practical Completion of the works.

1.21 - FAILURES OF SEEDING/TURFING
- Defective materials or workmanship: Areas that have failed to thrive.
- Exclusions: Theft or malicious damage.
- Method of making good: Re-cultivation and reseeding/ returfing.
Timing of making good: Submit proposals

2. EXTERNAL PLANTING - General Information/ Requirements Generally

- The whole of the works shall be executed in an efficient and workmanlike manner to the satisfaction of the Contract Administrator.
- All materials and workmanship shall be in accordance with the appropriate current British Standard except where otherwise stated.

2.01 - SITE CLEARANCE - Generally
- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 35mm.
- Vegetation: Clear surface vegetation in areas shown on drawings using suitable nonresidual herbicide.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Additional requirements: Apply a suitable non-residual herbicide to all areas to be planted if necessary. Notify Contract Administrator of the herbicide prior to application.

2.02 - CLEARANCE OF VEGETATION
- Where trees or shrubs are to be removed, felling shall be the complete removal of the tree, including the mechanical removal of the stump. In confined or restricted spaces, trees to be felled shall be dismantled.

2.03 - TOPSOIL
- At the time of starting the subcontract work, the areas to be planted will be covered by either: Undisturbed topsoil prepared as necessary by others so that it is in a suitable state for the cultivation operations specified in this section, or

Topsoil:
150mm depth to grass areas,
300mm depth to woodland and thicket planted areas,
450mm depth to shrub planted areas.
Supplied and spread by others prior to commencement of the Soft Landscape Works.

2.04 - SUITABILITY OF TOPSOILING
- Prior to starting the work the Contractor shall inspect areas to be planted to satisfy himself that after the specified preparation the topsoil will be suitable for planting.
- Commencement of planting will be taken as further acceptance by the Contractor as to the suitability of the topsoiling

2.05 - SOIL CONDITIONS
- Soil for cultivating and planting: See general information/requirements Moist, friable and not waterlogged.
- Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

2.06 SETTING OUT OF WORKS
- The Contractor shall set out tree positions, specimen shrub positions and shrub areas in accordance with the soft landscape layout/information. Where not dimensioned on plan scaled dimensions may be used. If in doubt contact Landscape Architect

2.07 - CLIMATIC CONDITIONS

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

2.08 - 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.

2.09 - MECHANICAL TOOLS

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

2.10 - APPROVED CHEMICALS

- All chemicals shall comply with the “Food and Environmental Protection Act 1985 Part 3” and the rules and consent as set out in the “Control of Pesticide
Regulations 1986” and any relevant Code of Practice issued by the MAFF regarding the application of pesticides shall be complied with at all times.
- All herbicides shall be on the current list of approved products. Storage, handling and application of chemicals shall be in accordance with the manufacturer’s instructions.
- The Contractor shall be responsible for any damage caused by spray drift and will make good at own expense.

2.11 - 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 or as required.

2.12 - 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.

2.13 - PREPARATION, PLANTING AND MULCHING MATERIALS

- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
Give notice before ordering or using.

2.14 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: To be confirmed/as plant schedule
- Definition: Origin and Provenance have the meaning given in the National Plant Specification.

2.15 - PLANTS/ TREES - SPECIFICATION CRITERIA

- Name, forms, dimensions, provenance and other criteria: As per planting schedule and defined in the National Plant Specification.
- Name, forms, dimensions and other criteria: To the relevant part of BS 3936.

2.16 - 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.

2.17 - LABELLING AND INFORMATION

Read in conjunction with Project no. 181, Drawing no. TP 01 r05 / SHM 01 r4 and Planting Schedule

- General: Provide each group of plants/ trees of a single species or cultivar showing:
- Full botanical name.
- Total number.
- Plant specification
- Employer's name and project reference.
- Plant specification, in accordance with scheduled National Plant Specification categories.
- Additional information: Submit on request.
- Standard: To BS 3936 and BS 3969.

2.18 - SUPPLY OF PLANTS, APPROVED SUPPLIERS

- Supplier: Contractor to advise Contract Administrator

2.19 - TREES RESERVED AT SUPPLIER'S PREMISES

- Types/ Species: As per planting schedule.
- Labelling: Identify inspected shrubs trees as reserved for use on this project.

2.20 - SHRUBS RESERVED AT SUPPLIER'S PREMISES

- Types/ Species: As per planting schedule.
- Labelling: Identify inspected plants/trees as reserved for use on this project.

2.21 - PLANT/ TREE SUBSTITUTION

- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Difference from specified plants/ trees. 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.

2.22 - PLANT HANDLING, STORAGE TRANSPORT AND PLANTING

- Standard: To HTA 'Handling and establishing landscape plants'.
- Frost: Protect plants/trees from frost.
- Handling: Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Root balled or container grown depending on time of year. To be agreed.
- Planting: Upright or well balanced with best side to front
- If plants suffer slight damage, they are to be carefully pruned. If major damage has occurred the plant shall be rejected and replaced at the Contractor's expense.
- After delivery, if planting is not carried out immediately, root balled shrubs should be placed cheek to cheek and the root ball covered with sand, peat or straw and watered to prevent drying out.

- Bare-rooted plants should be heeled-in by pacing the roots in a prepared trench and covering them with top-soil, which should be watered thoroughly to
eliminate air pockets around the roots.
- The security and tidiness of the area set aside for heeling in shall be the
responsibility of the Contractor. If planting is delayed for more than a week after
delivery, packaged plants shall be unpacked, the bundles opened up and each groups of plants heeled-in separately and clearly labelled.

2.23 - PLANTING GENERALLY

- Standard: To HTA '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.

2.24 - 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.

2.25 - PROTECTION OF EXISTING GRASS

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

2.26 - SURPLUS MATERIAL

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

2.27 PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS HERBICIDE

- Locations: If areas for planting have been sitting with topsoil prior to planting or all planting areas.
- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
Duration (minimum): As manufacturer's recommendation

2.28 - WEED CONTROL

- General: Prevent weeds from seeding and perennial weeds from becoming established.

2.29 - PEAT

- Peat or products containing peat: Do not use.

2.30 - SOIL AMELIORANT / CONDITIONER TO PLANTED AREAS

- Locations: All planting areas as identified in the schedule of work.
- Type: Mushroom compost or composted bark dependent on soil report recommendations.
- Reference/ Description/ Grading: sample to be provided for approval.
- Application: Spread evenly.
- Timing: Apply prior to cultivation.
Rate: 25-50 mm thick layer.

2.31 - COMPOST

- Locations: All plant beds see drawing: Project no. 181, Drawing no. TP01 r05 / SHM 01 r04
- Type: Sanitized and stabilized compost.
- Manufacturer: To be confirmed.
- Product reference: General planting compost.
- Application: Spread evenly.
- Timing: Apply prior to cultivation.
- Rate: Shrub beds: Depth of 150mm to be cultivated in with plants.
Rate: Tree pit: As per clause 02.53.

2.32 - SOIL AMELIORANT/ CONDITIONING PLANTED AREAS
- Locations: All planting areas as identified in the schedule of work.
- Type: Mushroom compost or composted bark dependent on soil report recommendations.
- Reference/ Description/ Grading: sample to be provided for approval.
- Application: Spread evenly.
- Timing: Apply prior to cultivation.
Rate: 25-50mm thick layer.

2.33 - CULTIVATION
- Compacted topsoil: Break up to full depth.
- Cultivation: Loosen, aerate and break up soil into particles of 2-8mm.
- Depth: 750mm in shrub beds and to the base in tree pits.
- Timing: Within a few days before planting.
- Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels: To be agreed with Landscape Architect.
- Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 35mm.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

2.34 - TOPSOIL
- During cultivation operations, the Contractor shall take all precautions necessary to prevent topsoil becoming mixed with subsoil or any other deleterious material.

2.35 - FINAL GRADING
- When topsoil is reasonably dry and workable it shall be graded to smooth, flowing contours, with falls, for adequate drainage, removing all minor hollows and ridges.

PLANTING SHRUBS/ HERBACEOUS PLANTS/ BULBS - Generally
- When inspected visually, plants shall be free from pests and diseases, damage and signs of nutrient deficiency and toxicity.
- Plants shall have adequate root systems and flowering plants shall have a reasonable expectation that they will give a good flower display the season following their planting out into open ground.
- All shrubs, hedging plants, climbers, herbaceous plants and bulbs should comply with BS 3936
- Planting will be avoided in frozen ground conditions and waterlogged soil.
- Temporary wind barrier protection should be provided if planting in periods of persistent wind.
- All plants will be firmed and watered if they are planted in dry weather.
- Planting holes should be about 150mm wider than the root spread.
- The shrubs should be set in the holes so that the soil level, after settlement, will be at the original root collar level on the stem of the shrub.
- The holes should be backfilled to half their depth then firmed by treading before the remainder of the topsoil is returned and firmed again.
- The shrubs used should be wildlife friendly such as scented species with a succession of flowering times and diverse range of petal shapes
- Where possible shrubs and seeds should be locally sourced.

2.36 - REGULAR PLANT LAYOUT
- Spacing: Refer to OLA Planting Plan see Project no. 181, Drawing no. TP01 r05 / SHM 01 r04

2.37 - PLANTING GENERALLY
- All plants shall be pit planted in accordance with BS 4428 in existing topsoil concurrently with cultivation.

2.38 - SHRUB PLANTING PITS

- Timing: Excavate 2 days (maximum) before planting.
- Sizes: 150mm wider than roots when fully spread and 300mm deep.
- Pit bottom improvement: Reduce any base compaction to depth of 300mm incorporating soil ameliorant/conditioner as clause 02.32
- Backfilling material: 750mm depth topsoil for plant beds. Shrub planting backfilling material as clause 02.43.

2.39 - PLANTING

- Before planting non-perishable containers shall be removed and badly damaged roots shall be carefully pruned.
- Plants shall be planted upright or well balanced with best side to the front. Topsoil shall be carefully returned to the planting pit, packing around evenly spread roots or root-ball and heeled firmly but gently in. The finished level shall be at the original soil mark on shrubs and 30mm above surrounding levels to allow for settlement.
- Shrubs which are not self-supporting shall be supported using sawn or riven timber stakes 1500mm long and not less than 25mm square in section pressure treated with non-injurious timber preservative to BS 4072. The stake shall be driven at least 600mm into the ground below the planting pit and shall be upright. Suitable Toms ties and spacers shall be used, positioned to suit the individual shrub. The stake will terminate some 75mm below the total height of the shrub and will be cut off neatly and square.

2.40 - 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 as per clause 02.36

2.41 - NATURALIZED HEDGES

- Planting: In trenches, large enough to take full spread of roots. Set out plants evenly as per clause 02.36

2.42 - BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional Topsoil as required.

2.43 - SHRUB, HERBACEOUS AND BULB BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required.
- Ameliorant/ Conditioner: Compost as above - supplier to be confirmed.
- Application rate: Spread 150mm compost over topsoil prior to planting and mix into topsoil to be used as above.
- Application rate: To suit soil report recommendations.
- Fertilizer: Slow release Spring and Autumn fertiliser - supplier to be confirmed.
- Application rate: To manufacturer's/supplier's and soil report recommendations.

2.44 - 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: Bark mulch – supplier to confirmed

Depth: 150mm

2.45 - PRUNING AFTER PLANTING

- Upon completion of planting work, all plants shall be inspected for damage and pruning shall be carried out.
- The pruning shall be limited to the minimum necessary to remove dead or damaged twigs or branches or to compensate for the loss of roots and the results of transplanting operations.
- Pruning shall be carried out in such a manner so as not to change the natural habit or shape of the plant. All cuts shall be made flush leaving no stubs.

2.46 - MULCHING PLANTING BEDS

- Material: Ornamental bark mulch – supplier to be confirmed.
- Purity: Free of pests, disease, fungus and weeds.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: Depth of 50mm.
- Mulch depth to be reduced as appropriate for areas of low ground cover/herbaceous planting - foliage of plants must not be covered with mulch.
- Finished level of mulch: 30 mm below adjacent grassed or paved areas.

2.47 - SHRUB PROTECTION AGAINST RABBITS

Where necessary certain shrubs may be identified as requiring protection from rabbit damage. Refer to clause 02.48 for specification.

- General: Ensure that protection methods do not impede natural movement of shrubs or restrict growth.

2.48 - RABBIT PROTECTION TO SHRUBS

- All new planted shrubs should have protection. Refer to Planting Plan.
- Manufacturer: Green Tech
- Product reference: Bio-Earth Biodegradable Plastic-Free Shrub Shelter Guard CODE: 160PS1006
- Type: Shrub Shelterguard
- Material: Plastic-free, fixed to stake using galvanised staples.
- Size: 600mm x 150mm x 150mm diameter or greater to suit size of shrub.
- Support: Stake: 900x32x32mm (400mm below ground level).
- General: Ensure that protection methods do not impede natural movement of shrubs or restrict growth.

PLANTING TREES - Generally
- The planting site shall be naturally or physically drained to prevent the trees from being waterlogged at any time.
- Excavations for tree pits should be at least twice the diameter of the root spread, and 1.5 times the depth of the roots of the stock to be planted.
- Before planting, the sides of the pit shall be broken up and the base dug over to a depth of 150mm to improve drainage.
- The tree will be planted to the same depth as it was in the nursery.
- Backfill will be firmed in around the root-ball to prevent any air pockets.
- An irrigation/aeration system will be installed comprising of perforated pipe around the root ball.
- Installation of a supporting system for the tree will be necessary and will be in the form of an appropriately sized tree stake and accompanying tree ties. For most trees and locations, a single stake and one tie should provide adequate anchorage. “Tall Standard” trees and root-balled
- Trees may need two stakes and a tie from each stake to the tree; or two stakes, a crossbar and a tie; to hold the root collar steady.
- Single stakes, which should generally be on the windward side of a tree, should be driven into the ground vertically, although on hillsides/slopes a slanting stake may need to be installed on the higher side.
- All tree stakes on the same site should be of a uniform height.
- Any necessary formative pruning will be carried out and where appropriate, woodchip/bark mulch applied to a depth of 50mm, and to at least the edge of the planting pit.
- Where suitable tree species should be native to the UK, represent the character of the local landscape and where possible link with existing vegetation
- The trees used should be wildlife friendly for example berry, fruit bearing or scented species
- Where possible trees and seeds should be locally sourced.

2.49 - TREE PITS
Tree Pits For Standard And Extra Heavy Standard Trees In Soft Landscape
Size: 16-18cm and 10-12cm girth: 1000x1000mm Depth of 750mm.
Tree Pits For Semi-Mature Feature Tree
• Size: 20-25cm girth: 1500x1500mm, Depth of 800mm.

- Pit bottoms: With slightly raised centre. Break up to a depth of 300mm
Treatment: Soil ameliorant worked into pit bottoms.
- Pit sides: Scarify.
- Backfilling material: Topsoil with compost mixed through as per 02.53.
- Accessories: Tree pits are to be tested for free drainage and if required positive drainage shall be installed in accordance with the requirements of clause 02.51.

2.50 - TREE PIT ROOT BARRIERS
- Locations: To be installed by the Contractor, if identified as required to protect paving or underground services.
- Manufacturer: Contractor’s choice.
- Product reference: Submit proposals.
- Depth of top of root barrier below finished soil level: 50mm in accordance with supplier’s specification.
Installation: With sides vertical.

2.51 - TREE PIT DRAINAGE
- To be installed by the Contractor if required following flood testing of tree pits
- Depth of excavation: Increase from specified size to allow for aggregate layer, with base slightly falling to outlet.
- Aggregate layer: Clean gravel or broken stone, with no fines, graded 40 to 20mm.
- Depth: 150mm
- Drainage pipes: Type: To be confirmed by Engineer.
- Diameter: To be confirmed by Engineer.
- Position: Lay around perimeter of pit within aggregate layer and connect to soakaway.

- Geotextile filter:
- Manufacturer: Submit proposals.
- Product reference: Submit proposals.
- Position: Lay over aggregate before installing tree or backfill.
- Completed pits: Test for free drainage before planting.

2.52 - STAKING GENERALLY All timber shall be peeled and pressure treated
- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end in accordance with BS 4072.
- Preservative treatment: To provide a 20-year service life.
- Nails: To BS 1202-1, galvanized, minimum 25mm long and with 10 mm diameter heads.
- Stake size (minimum): 50 mm diameter and sufficiently long to allow 600mm of stake to be driven into undisturbed ground at bottom of tree pit.

Double Staking For Standard And Extra Heavy Standard Trees
• Staking: Position with two tree stakes and a cross spar on windward side. The overall length of the stakes shall be sufficient to ensure that they are firm when driven into the soil and that the top of the stake extends above ground level to approximately one third of the tree's height.
- Backfilling: Consolidate material around stakes.
- Height of stakes: Cut to approximately 750 mm above ground level.
- Ties: Twin Flexible nylon rubber belts within 25 mm of top of stake with plastic sleeves either side of tree. Fix belts to stakes using galvanised nails.
- Tying: Secure tree firmly but not rigidly. The tree tie should utilise a rubber collar to ensure that tree and stake do not touch in any place.

2.53 - TREE BACKFILLING MATERIAL
- Composition: Previously prepared mixture of topsoil see topsoil excavated from pit and additional topsoil as required.
- Application rate: Backfill pit as required.
- Compost: 20 litres/sq.mtr
- Ameliorant/ Conditioner: To be confirmed.
- Application rate: To manufacturer's/ supplier's recommendations.
- Fertilizer: Slow release pre-planting fertiliser 3+16+9 +5 or similar approved in accordance with manufacturer's recommendations.
Application rate: To suit soil report and to manufacturer's/ supplier's recommendations.

2.54 - WATERING
Trees shall be watered thoroughly immediately after backfilling.

2.55 - MULCHING TREES
- Material: Bark mulch as specified in schedule of work.
- Purity: Free of pests, disease, fungus and weeds.
- Recycled content: None permitted.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: In a circular area of 500mm radius measured from the tree stem, 50mm depth.
- Finished level of mulch: 30mm below adjacent grassed or paved areas.

2.56 - RABBIT PROTECTION TO TREES
- All new planted trees should have protection. Refer to drawing.
- Manufacturer: Rainbow Treebio Biodegradable Spiral Guard CODE: 160PS1031-PRO(or similar approved)
- Product reference: Spiral Guard.
- Material: Biodegradable.
- Size: 0.6m high x 50mm diameter or greater to suit girth of tree.
- Support: 900mm Bamboo Cane (300mm below ground level).
- General: Ensure that protection methods do not impede natural movement of trees or restrict growth.

2.57 - PROTECTING TREE BARK FROM INJURY

Maintaining the integrity of the bark and outside layer of the trunk of a tree is essential to its survival. This can be achieved depending on the context with the method to be agreed with the Client on a site by site basis

– 1.5m dia circle of bark mulch where trees are located in grass areas (conserves moisture and protects bark from mower and strimmer damage). The mulch shall be 75mm deep

PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS

The Contractor shall physically maintain the whole of the soft landscape works within the contract boundaries in accordance with the Contract Documentation. The period of maintenance will be twelve months following Practical Completion.

2.58 - MAINTENANCE WORKS

- Maintenance works to External Planting are specified in the Landscape Maintenance schedule of works.
- The contractor should refer to this for all operations that are to be carried out during the specified maintenance period.

2.59 - MAINTENANCE PRIOR TO PRACTICAL COMPLETION

- The Contractor shall physically maintain the planted areas prior to completion at his own expense unless otherwise agreed with the Contract Administrator.
- Maintenance shall include all the works that are specified in
- Section '03 - Landscape Maintenance' and the Schedule of Work to keep areas in an acceptable condition prior to be accepted for handover.
- The Contractor shall be responsible for any watering of planted areas prior to completion.

2.60 - MAINTENANCE

- Duration: Carry out the operations the operations in Section '03 - Landscape Maintenance' from completion of planting until practical completion: date to be confirmed (12 months).
- Frequency of maintenance visits: Fortnightly during growing season or as required.

2.61 - FAILURES OF PLANTING

– All missing or damaged plants must be replaced as part of the contract.
- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
- 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: As required throughout years' maintenance or during the next suitable planting season

2.62 - MAKING GOOD DEFECTS

- The Contractor shall arrange a Making Good of Defects inspection with the Contract Administrator to take place immediately after the completion of these works.
- At the Making Good of Defects inspection, all areas shall be complete, in good order and in a tidy condition; grass shall be mown and edges edged; planted areas and areas at the base of trees shall be weed free, tidy and in a friable state.

2.63 - FINAL INSPECTION

- Should the Contract Administrator deem further work is required under Defects Liability the Contractor shall be responsible for maintenance and defects liability until these works are completed and a Certificate of Making Good Defects issued.

2.64 - 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.

2.65 - PLANTING MAINTENANCE GENERALLY
- Weed control: Maintain weed free area around each tree and shrub.
- Diameter (minimum): The larger of 1m or the surface of original planting pit.
- Keep planting beds clear of weeds.
- 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: Weekly throughout maintenance period.
- 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: As required for healthy growth of tree.

2.66 - PLANTING MAINTENANCE – FERTILIZER
- Time of year: March or April/Autumn
- Fertilizer: Slow release.
- Manufacturer: Supplied by be confirmed.
- Product reference: Fertilizer
- Application: Evenly spread, carefully incorporating below mulch materials.
- Application rate: 35g/m2.

2.67 - PLANTING MAINTENANCE – PRUNING
- General: Prune to promote healthy growth and natural shape.
- Dead, dying, diseased wood and suckers: Remove.
- Timing: As required.
- Trees: Favour a single central leading shoot.
- Arisings: Remove.

2.68 - MAINTENANCE INSTRUCTIONS
- General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year.

2.69 - FINAL MULCHING
- Timing: At end of the maintenance period.
- Watering: Ensure that soil is thoroughly moistened prior to re-mulching, applying water where necessary.
- Planting beds: Re-mulch.
Depth (minimum): 50mm.
- Trees: Re-mulch.
Depth (minimum): 50mm

2.70 - PROTECTING TREE BARK FROM INJURY
– Additional 1.5m dia circle of bark mulch where trees are located (conserves moisture and protects bark from mower and strimmer damage). The mulch shall be 75mm deep