

Basingstoke and Deane

LANDSCAPE SPECIFICATION

FOR AREAS COVERED BY

AN OPEN SPACE AGREEMENT

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LANDSCAPE SPECIFICATION
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A31 PROVISION, CONTENT AND USE OF DOCUMENTS

This document specifies the standard of landscape works required by the Borough Council for areas to be adopted under agreements with the Borough Council.

DEFINITIONS AND INTERPRETATIONS

121A DCS: means the Director of Community Service's authorised representative.

139 IN WRITING: When required to advise, notify, inform, instruct, agree, confirm, obtain information, obtain approval or obtain instructions do so in writing.

140 APPROVAL: (and words derived there from) means the approval in writing of the DCS unless specified otherwise.

200 EQUIVALENT PRODUCTS:

- Where the specification permits substitution of a product of different manufacture to that specified and such substitution is desired, before ordering the product notify the DCS and, when requested, submit for verification documentary evidence that the alternative product is equivalent in respect of material, safety, reliability, function, compatibility with adjacent construction, availability of compatible accessories and, where relevant, appearance. Submit certified English translations of any foreign language documents.
- Any proposal for use of an alternative product must also include proposals for substitution of compatible accessory products and variation of details as necessary, with evidence of equivalent durability, function and appearance of the construction as a whole. If such substitution is sanctioned, and before ordering products, provide revised drawings, specification and manufacturer's guarantees as required by DCS.

201 EQUIVALENT PRODUCTS: Wherever products are specified by proprietary name and the phrase 'or equivalent' is not included, it is to be deemed included.

210 BRITISH STANDARD PRODUCTS: Where any product is specified to comply with a British Standard for which there is no equivalent European Standard it may be substituted by a product complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK specifying equivalent requirements and assurances in respect of material, safety, reliability, function, compatibility with adjacent construction, availability of compatible accessories and, where relevant, appearance. In advance of ordering notify the DCS of all such substitutions and, when requested, submit for verification documentary evidence confirming that the products

comply with the specified requirements. Any submitted foreign language documents must be accompanied by certified translations into English.

225 REFERENCES TO BSI DOCUMENTS: are to the versions and amendments listed in the BSI Standards Catalogue current at the date of tender.

351A MAKE GOOD: means carry out local remedial work to components, features and finishes which have been disturbed during the course of this Contract and leave in a sound and neat condition. The meaning of the term shall not be limited by this definition where used in connection with the defects liability provisions of the Contract..

371 TO MATCH EXISTING: means use products, materials and methods to match closely all visual characteristics and features of the existing work, with joints between existing and new work as inconspicuous as possible, all to approval of appearance.

A32 MANAGEMENT OF THE WORKS

PROGRAMME/PROGRESS

280 **PREF-WORKS MEETING:** before the commencement of the landscape works the developer or his contractor shall inform the DCS of his intention to start and shall meet the DCS representative to discuss the successful implementation of the works.

285 **INSPECTION DURING THE WORKS:** The developer and his contractor shall allow the DCS access at all times to the works for inspections and shall inform the DCS 7 days before the following operations are to take place:

Clearance works including tree felling and pruning
Delivery of topsoil
Application of herbicide
Application of fertiliser
Preparation of seed beds
Seeding or turfing
Delivery of plants
Planting of shrubs and trees

and 2 days notice of each maintenance visit.

290A **NOTICE OF PRACTICAL COMPLETION:** Give DCS at least two weeks notice of the anticipated dates of Practical Completion of the whole or parts of the Works. The DCS and the Developer shall jointly inspect the works and any item not in accordance with the approved landscape plan and to the standards set out in this landscape specification shall be completed as quickly as is reasonable before the issuing of the Certificate of Practical Completion. Depending upon the timing of the Contract and the growing seasons, the Developer may have to maintain certain sections of the work, until the whole of the Works are granted a certificate of practical completion.

WORK AT OR AFTER PRACTICAL COMPLETION

612A **GENERALLY:**

- Make good all damage consequent upon the work.
- Remove all temporary markings and protective coverings.
- Remove all deposits, rubbish and surplus materials.

650 **MAKING GOOD DEFECTS:** Inform DCS when remedial works to the various parts of the Works are completed.

655 **DEFECTS LIABILITY PERIOD FOR PLANTS (JCL Clause 2.8A):** This shall normally be 12 months from the issue of the Certificate of Practical Completion unless the making good of plant defects, for whatever reason, is not completed until after the 12 month period has expired, in which case the Defects Liability Period for plants shall be extended until such time as all plant defects have been made good.

- 660 **COMPLETION OF DEFECTS LIABILITY PERIOD/MAINTENANCE PERIOD AND ISSUING OF CERTIFICATE OF FINAL COMPLETION:** Prior to the end of the Defects Liability Period and the Maintenance Period, a joint inspection of the Works will be made and a schedule of defective works shall be drawn up and issued. Upon completion of this remedial work, inform the DCS so that the Works can be re-inspected prior to the issue of a certificate of Final Completion. If it is directed that defects in plant material shall be remedied before the termination of the Maintenance Period, due to seasonal factors related to planting, then the Developer shall only be held liable for making good further plant defects where remedial work is clearly not in accordance with the specification. In the event of the plant defects being satisfactorily made good prior to the termination of the Maintenance Period, the Developer shall still be liable to maintain the Works in accordance with the Specification up to the expiry of the Maintenance Period.
- 665 **HANDOVER:** Handover is achieved when the DCS agrees that the landscape works have been completed in accordance with the approved landscape plan and a certificate of Final Completion has been issued. The landscape areas within a development will normally only be accepted as a whole. However on large developments or phased developments parts may be adopted by agreement with the DCS provided that they are sufficiently large, are complete and accessible.

A33 QUALITY STANDARDS/CONTROL

MATERIALS AND WORK GENERALLY

- 110 **GOOD PRACTICE:** Materials, products and workmanship are not fully detailed or specified they are to be:
- Of a standard appropriate to the Works and suitable for the functions stated in or reasonably to be inferred from the approved plans and details, and in accordance with relevant good practice.
- 131 **PROPRIETARY PRODUCTS:**
- Handle, store, prepare and use or fix each product in accordance with its manufacturer's current printed or written recommendations. Inform DCS if these conflict with any other specified requirement. Submit copies when requested.
- 151 **PROTECTION OF PRODUCTS:**
- Keep dry to prevent premature setting, moisture movement and similar defects. Where appropriate store off the ground and allow free air movement between stored products.
 - Prevent excessively high or low temperatures and rapid changes of temperature in the products.
 - Protect adequately from rain, damp, frost, sun and other elements as appropriate. Ensure that products are at a suitable temperature and moisture content at time of use.
 - Keep different types and grades of products separately and adequately identified.
 - Keep products in their original wrappings, packings or containers until immediately before they are used. Wherever possible retain protective wrappings after fixing and until shortly before Practical Completion.
 - Ensure that protective measures are fully compatible with and not prejudicial to the products/materials.
- 171A **GENERAL QUALITY OF WORKMANSHIP:**
- Operatives must be appropriately skilled and experienced for the type and quality of work.
 - Standards of workmanship are to be not less than those contained in any Codes of Practice applicable to the Works.
 - Take all necessary precautions to prevent damage to the work from frost, rain and other hazards.
 - Inspect components and products carefully before fixing or using and reject any which are defective.
 - Fix or lay securely, accurately and in alignment.
 - Compact thoroughly and evenly, any materials that require compaction.
- 191 **WATER FOR THE WORKS:** If other than mains supply is proposed provide evidence of suitability.

SERVICES GENERALLY

- 410 SERVICES REGULATIONS: Any work carried out to or which affects new or existing services must be in accordance with the Bye Laws or Regulations of the relevant Statutory Authority.

A34 SECURITY/SAFETY/PROTECTION

GENERALLY

125 HSE APPROVED CODES OF PRACTICE: Comply with the following:

- Management of health and safety at work.
- Managing construction for health and safety.

PROTECT AGAINST THE FOLLOWING:

231 POLLUTION: Take all reasonable precautions to prevent pollution of the site, the Works and the general environment including streams and waterways.

233 FUEL, LUBRICANTS AND HYDRAULIC FLUIDS:

- Store and handle, including refuelling, only on hardstanding or other approved areas, away from watercourses and drains.
 - Keep well away from soil, planting and grassed areas.
- Ensure that vehicles and plant are secure from leakage and spillage. If spillage occurs, take appropriate emergency action and inform the DCS immediately.

235A USE OF PESTICIDES:

- Use Glyphosate only.
- Where work is near water, drainage ditches or land drains, comply with the MAFF guidelines for the use of herbicides on weeds in or near water courses and lakes.
- Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.
- Operatives must hold a BASIS Certificate of Competence, or work under the supervision of a Certificate holder.
- Work shall only proceed if weather and site conditions are suitable in every way and are likely to remain so for the period of application and action of the chemical. The DCS may suspend operations at any time if they consider that conditions are unsuitable.
- After use, equipment shall not be washed out on site. Any damage to adjacent areas shall be fully made good at the Developer's expense.
- Operatives must fully comply with the manufacturer's recommendations for the use of the chemical. Products shall be applied at a suitable rate to be fully effective without causing any damage whatsoever to surrounding vegetation.

240 NUISANCE: Take all necessary precautions to prevent nuisance from smoke, dust, rubbish, vermin and other causes.

265 BURNING ON SITE: of materials arising from the work will not be permitted.

291 **WASTE:**

- Ensure that non-hazardous material is disposed of at a tip approved by a Waste Regulation Authority.
- Remove all surplus hazardous materials and their containers regularly for disposal off site in a safe and competent manner as approved by a Waste Regulation Authority and in accordance with relevant regulations.

PROTECT THE FOLLOWING

410 **WORK IN ALL SECTIONS:** Adequately protect all types of work and all parts of the Works, including work carried out by others, throughout the Contract. Wherever work is of an especially vulnerable nature or is exposed to abnormal risks provide special protection to ensure that damage does not occur.

421A **EXISTING SERVICES:**

- Before starting work check positions of existing services.
- Observe service authorities recommendations for work adjacent to existing services. Do not interfere with their operation without consent of the service authorities or other owners.

430A **ROADS AND FOOTPATHS:** Adequately maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris. Any damage to roads and footpaths caused by site traffic or otherwise consequent upon the Works must be made good to the satisfaction of the Local Authority or other owner. No materials, tools, plant etc of any description will be deposited or erected on roads, footpaths or other rights of way.

435 **EXISTING TOPSOIL/SUBSOIL:** Before starting work, submit to the DCS, proposals for protecting existing topsoil and subsoil from over compaction in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.

440A **RETAINED TREES/HEDGES/SHRUBS/GRASSED AREAS:**

- Adequately protect and preserve, except those which are to be removed.
- Replace to approval or treat as instructed any species or areas damaged or removed without approval.
- Mature trees and shrubs which, due to the Developer's negligence, are uprooted, destroyed, or in the opinion of the DCS, damaged beyond reasonable chance of survival in their original shape, must be replaced with those of a similar type and age at the Developer's expense.
- All repairs/replacements are to be to the satisfaction of the DCS.

445 **TREES TO BE RETAINED:** Unless agreed otherwise by the DCS, do not:

- Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within the branch spread.
- Sever roots exceeding 25 mm in diameter.

Change level of ground within an area 3 m beyond the branch spread.

- 480A **EXISTING FEATURES:** Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features which are to remain in position during the execution of the Works. Bear the cost of repairing any damage arising from the execution of the Works to the satisfaction of the DCS.
- 482A **ADJOINING PROPERTY:** Prevent trespass of workpeople. Take all reasonable precautions to prevent damage to adjoining property.
- 483A **RELICS AND ANTIQUITIES:** Should any objects of value, antiquity or archaeological interest be discovered during the works, notify the DCS immediately and suspend all works in the vicinity of such relics and antiquities until the DCS provides written instruction to continue
- 493 **ACCESS:** Maintain at all times, reasonable pedestrian and/or vehicular access to all property, paths, rights of way, roads etc affected by the Works.

A36 FACILITIES/TEMPORARY WORK/SERVICES

- 110 LOCATIONS: Inform DCS of the intended siting of all spoil-heaps, temporary works and services.
- 120 MAINTAIN: alter, adapt and move temporary works and services as necessary. Remove when no longer required and make good.
- 313A TEMPORARY ACCESS: Provide such temporary access or roads on the site as may be necessary for the proper performance of the Contract, but not otherwise. The precise location and alignment of any such access/road must be agreed with the DCS. Provide all kerb crossovers and maintain during the works. Reinststate after the Works are complete, to the satisfaction of the DCS
- 322 WARNING SIGNS AND LIGHTS: Erect warning notices and lights where excavations, materials or plant may be near roads or pedestrian routes during and outside working hours. Signing and lighting for the whole of the works shall be in accordance with Chapter 8 of the Traffic Signs Manual, 1982 'Traffic Safety Measures for Road Works'.
- 325A TEMPORARY FENCING TO EXISTING TREES/VEGETATION:
- Before starting work, erect temporary protective fencing around all trees and vegetation to be retained.
 - Type of fencing: chestnut paling on scaffold framework to BS 5837, figure 4. Height of fencing: 2.4m
 - Locate fencing at the outer limit of the branch spread or a distance equal to half the height of the tree, whichever is the greater.
 - Maintain integrity of fencing for the duration of the works.
 - Remove fencing on the completion of the works and make good disturbed area.
- 433A WATER: The Developer shall ensure provision of sufficient water for the whole of the Works and throughout the maintenance period.
- 438A WATER RESTRICTIONS: If the water supply is or is likely to be restricted by emergency legislation, inform the DCS without delay and ascertain the availability and additional cost of water from alternative sources. The developer is to bear the additional cost of alternative sources of water. No claim based on the unavailability of water will be entertained.

C10 DEMOLISHING STRUCTURES

- 25 **LOCATION OF SERVICES.** Locate and mark the positions of services affected by the work. Arrange with the appropriate authorities for the location and marking of the positions of mains services.
- 35 **DRAINS IN USE:** Protect drains and fittings still in use and keep free of debris at all times. Make good any damage arising from demolition work and leave clean and in working order at completion.
- 45 **SERVICES WHICH ARE TO REMAIN:** Notify the DCS and service authority or owner of any damage. Make all arrangements for repair to the satisfaction of the DCS and service authority or owner. Bear the costs arising.
- 50 **WORKMANSHIP GENERALLY:**
- Demolish structure(s) in accordance with BS 6187 and Health and Safety Executive Guidance Notes GS29/1, 3 and 4.
 - Operatives must be appropriately skilled and experienced for the type of work and hold or be training to obtain relevant CITB Certificates of Competence.
 - Site staff responsible for supervision and control of the work are to be experienced in the assessment of the risks involved and in the methods of demolition to be used.
- 85 **COMPLETION:** Clear away all debris and leave the site tidy on completion.

D20 EXCAVATING AND FILLING

CLEARANCE/EXCAVATING

- 161 **SITE FEATURES:** Before starting work verify with DCS which existing fences, gates, walls, roads, paved areas and other site features are to be removed. Materials arising are to be removed from site.
- 164 **CUTTING TREE ROOTS:**
Do not cut roots in the protected area without approval of the DCS. The protected area is the larger of: the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
Notify DCS and seek instruction if roots exceeding 50 mm are exposed by excavations.
- Form clean smooth cuts with a hand saw, minimizing the wound area and avoiding ragged edges. Pare cut surfaces smooth with a sharp knife. If roots have been unintentionally severed, notify DCS and form a new clean cut slightly nearer the trunk.
 - Cover with original topsoil.
- 170 **REMOVING TREES, SHRUBS AND HEDGES:**
- Before starting work verify with DCS which trees, shrubs and hedges are to be removed.
 - Check for below and above ground services in the vicinity. Inform DCS if they may be affected and obtain instructions before proceeding.
 - Comply with Forestry and Arboriculture Safety and Training Council Safety Guides.
 - Cut down and grub up roots of shrubs and smaller trees. Fell larger trees as close to the ground as possible and remove stumps.
 - Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.
 - Obtain DCS's approval before removing stumps by winching and do not use other trees as supports or anchors.
 - Comply with the Dutch Elm Disease (Restriction on Movement of Elms) Order.
 - Tree stumps: remove stumps mechanically to a minimum depth of 300mm below ground level.
- 181A **SITE CLEARANCE:**
- Clear site of rubbish, debris, material arising from clause 170 and all extraneous matter including stone, concrete, timber, paper and the like, whether lying on the surface or partially buried.
 - Take all arisings to a licensed tip, unless given specific alternative instructions by the DCS.
 - Retain all existing trees, hedges and shrubs except where the DCS specifically gives instructions for removal, or where shown on the drawings.
- 187A **CHIPPING OR SHREDDING ON SITE** on site of materials arising from the

work will only be permitted with the approval of the DCS.

- 188 BURNING ON SITE of materials arising from the work will not be permitted.
- 210 MATERIALS ARISING from the excavations and surplus to requirements for filling are to be removed from the site.
- 220A STRIPPING TOPSOIL:
- Remove to an average depth of 200 mm and keep separate from excavated subsoil.
 - Handle topsoil for re-use or sale in accordance with clause 855
 - Do not remove topsoil from below the spread of trees to be retained.

DISPOSAL OF MATERIALS

- 410 TOPSOIL: Stockpile all excavated preserved topsoil in temporary spoil heaps on site, as directed by DCS.
- 431 SURPLUS EXCAVATED TOPSOIL: Remove from site to licensed tip.
- 443 SUBSOIL: Remove from site surplus subsoil not required on site for filling or mounding. Do not raise soil level within the root spread of existing trees that are to be retained.
- 450 WATER: Keep all excavations free from water until formations are covered and below ground constructions are completed.
- 510A HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS:
- Do not import or use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling.

TOPSOIL AREAS

- 810A GRADE SUBSOIL to smooth flowing contours and to achieve the specified finished levels of the topsoil. Excavate locally as necessary for areas of thicker topsoil.
- 820 LOOSEN SUBSOIL consisting of light, noncohesive material with a 3 tine ripper, drawl 300 mm deep at 600 mm centres in two directions obliquely across the slope, when ground conditions are reasonably dry.
- 821 LOOSEN SUBSOIL consisting of stiff clays or other cohesive material with a single tine ripper, driven 450 mm deep at 1 m centres in two directions obliquely across the slope, when ground conditions are reasonably dry.
- 823 LIGHTLY SCARIFY subgrades consisting mostly of rock or chalk to promote free drainage.

- 839 PREPARATION OF UNDISTURBED TOPSOIL:
- Prepare areas to receive soft landscaping as necessary to ensure that the topsoil is in a suitable state for the cultivation operations specified in sections Q50 and/or Q51. In particular:
 - Where the ground is hard, break up with a ripper, operated in transverse directions, removing any roots or boulders.
 - Where the ground is covered with turf or a thick sward plough or dig over to the full depth of the topsoil.
 - After any such cultivation leave fallow for not less than 3 months. During this period spray at appropriate times to prevent seeding of weeds.
- 840A IMPORTED TOPSOIL
- Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- To BS 3882, grade: General Purpose Grade or Premium Grade.
- If requested by the DCS, provide a declaration of analysis including information detailing each of the relevant parameters given in BS 3882, clause 6 and table 2 for the grade of topsoil specified.
- 848 INSPECTION OF IMPORTED TOPSOIL: Arrange for DCS to inspect a sample load of not less than 5 cu m before making further deliveries to site. Retain for comparison with subsequent loads.
- 850 CONTAMINATION: Unless specified otherwise:
- Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - Corrosive, explosive or flammable
 - Hazardous to human or animal life
 - Detrimental to healthy plant growth.
 - In areas to receive topsoil, do not use subsoil contaminated with the above materials.
 - Inform the DCS if any evidence or symptoms of soil contamination are discovered on the site, or in topsoil to be imported.
- 855A HANDLING TOPSOIL: When moving topsoil within the site, or when stripping topsoil and importing to site:
- If aggressive weeds are present, obtain instructions from the DCS before moving topsoil.
 - Select and use plant to minimize disturbance, trafficking and compaction.
 - Avoid contamination by subsoil, stone, hardcore, rubbish or material from demolition work.
 - Keep different grades of topsoil separate from each other when handling and stockpiling.
 - Minimize multiple handling of topsoil. Use topsoil immediately after stripping wherever possible.
 - Handle topsoil in the driest condition reasonably possible. Do not handle topsoil during or after heavy rainfall.

860A SPREADING TOPSOIL

- Spread over prepared subsoil in layers not exceeding 150 mm and gently firm each layer before spreading the next.
- Overall minimum depths after firming and settlement to be: 150mm under grass and 450mm under shrubs.
- Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

880A FINISHED LEVELS OF TOPSOIL after settlement, unless otherwise stated, to be:

- 25mm above adjoining paving or kerbs,
 - Unchanged within the root spread of existing trees,
 - Not less than 150 mm below dpc of adjoining buildings,
 - 25mm higher for shrub areas than for adjoining grass areas,
 - Married-in with adjoining soil areas.
 - Free from ridges, furrows or any depression that may cause water to collect.
- All finished levels to be approved by DCS prior to work proceeding.

Q10 STONE/CONCRETE/BRICK KERBS/EDGINGS/CHANNELS

TYPE(S) OF KERB/EDGING/CHANNEL

111 PRECAST CONCRETE EDGING

- To BS 7263: Part 1.
- Method of manufacture: Wet press process.
- Type/size: EF/50x 150mm laid straight or curved

LAYING

210A LAYING GENERALLY:

- Where necessary cut units neatly and accurately with a masonry saw and without spalling to give neat junctions.
- Bed units in mortar, true to line and level along top and front faces, on accurately cast foundations and secure with a continuous haunching of concrete. Allow bedding to set before placing haunching.
- Keep exposed faces of units clean and free from concrete and mortar droppings.
- Cut and lay units to achieve smooth flowing curves as shown on the relevant drawings.

220 ADVERSE WEATHER: Do not cast foundations, lay units or place haunching if the temperature is below 5 degC on a falling thermometer or 1 degC on a rising thermometer. Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.

230 CONCRETE FOR FOUNDATIONS AND HAUNCHING: To BS 5328, Designated mix not less than GEN0 or Standard mix not less than ST1, very low workability.

290 RADIUS KERBS/CHANNELS to be used for all radii of 12 m or less.

300 ANGLE KERBS to be used for both internal and external 90 degrees changes of direction; cutting of mitres will not be permitted.

320 NARROW MORTAR JOINTS: Butter ends of units with bedding mortar as laying proceeds to completely fill joints. Tightly butt to a thickness of 3 mm and clean off surplus mortar immediately.

330 TOOLED MORTAR JOINTS: Butter ends of units with bedding mortar as laying proceeds to completely fill joints to a thickness of 6 mm. Tool to a neat flush profile.

Q20 GRANULAR SUB-BASES TO ROADS/PAVINGS

- 110 THICKNESSES OF SUB-BASE/SUBGRADE IMPROVEMENT LAYER(S)** are specified in the following related sections:
Q22 Coated macadam/Asphalt pavings
Q23 Bounded G
ravel and Hoggia pavings
- 130 HERBICIDE:** Apply an approved type of herbicide in accordance with manufacturer's recommendations to subgrade.
- 140 COMPACTION OF SUBGRADE:**
- Defect final excavation to formation level until immediately before compaction of subgrade.
 - Soft spots must be brought to the attention of the DCS. Obtain instructions before proceeding.
 - Subgrade must be relatively dry at time of compaction.
 - Where use of a roller is impracticable use a suitable mechanical rammer.
 - Where local excavation and backfilling has taken place make additional passes of the roller.
- 160 SUBGRADE FOR PEDESTRIAN AREAS:** Immediately before placing sub-base thoroughly compact subgrade with a roller weighing not less than 2.5 tonnes or equivalent other plant.
- 170 GEOTEXTILE FILTER:**
- Lay an approved type in accordance with manufacturer's recommendations to compacted subgrade.
 - Do not allow construction or other vehicles over the geotextile until it is fully covered by the granular sub-base.
- 210 GRANULAR MATERIAL:** To Highways Agency Specification for highway works, clause 803 (Type 1) or approved equivalent. Test materials as clause 803.5 if required by the DCS.
- 230 PLACING GRANULAR MATERIAL GENERALLY:**
- Ensure that subgrade is free from loose soil, rubbish and standing water.
 - Take all necessary precautions to ensure stability of adjacent structures. Place and compact material against or over structures, membranes or buried services in a sequence and manner which will ensure stability and avoid damage.
 - Take particular care to compact fully around drainage fittings, inspection cover bases and at perimeters.
- 250A LAYING GRANULAR SUB-BASES FOR PEDESTRIAN AREAS:** Spread and level and, as soon as possible thereafter, compact with a five passes of a vibrating roller weighing not less than 2.5 tonnes or other equivalent plant.
- 330 COLD WEATHER WORKING:**

- Do not use frozen materials containing ice.
- Do not lay materials on frozen surfaces.

340 PROTECTION:

- Cover sub-bases as soon as practicable with subsequent layers, specified elsewhere.
- Prevent damage to subgrades and sub-bases from construction traffic, construction operations and inclement weather.

Q22 COATED MACADAM/ASPHALT PAVINGS

TYPE(S) OF PAVING

130A COATED MACADAM PAVING TO FOOTPATHS

- Materials and workmanship: To DoI Specification for Highway Works 1991.
- Granular sub-base: As section Q20 clause 210
Thickness 100mm.
- Basecourse: 20mm open-textured macadam to BS 4987 (Clause 6.1)
Thickness 50 mm
- Wearing course: 6mm medium-textured macadam to BS 4987 (Clause 7.6)
Thickness 20 mm
- Surface treatment: None

PREPARATORY WORK/REQUIREMENTS

210A TIMBER EDGING to paving type Q22/130A

- Softwood board 150 mm x 38 mm, nailed to 50 mm x 50 mm x 600 mm long softwood pegs driven into the ground at 1200 mm centres. Top of pegs to be 25mm below top of edging board.
- Edging boards to be laid flush with finished ground levels and true to the line and curves shown on the relevant drawings.
- Preservative treatment: As section Z12 and British Wood Preserving and Damp-proofing Association Commodity Specification C4
Type/desired service life: CCA or Creosote, 20 years.

250 ABUTMENTS: Clean edges of manholes, kerbs and other abutments and paint with a thin uniform coating of bitumen.

260 JOINTS WITH EXISTING MACADAM: Cut back existing macadam surfaces to form a neat, flush and secure joint with new surfacing. Neatly seal the whole length of the joint with hot bitumen.

LAYING

310 LAYING GENERALLY:

- Remove all loose material, foreign matter and standing water from surfaces to receive paving materials.
- Form neat junctions with and prevent damage to adjacent work. Keep clean all channels, kerbs, inspection covers etc.
- Keep new paving free from traffic until it has cooled to prevailing atmospheric temperature. Do not allow rollers to stand on paving at any time.
- Do not use pavings as a building platform or for storing, mixing or preparing materials.
- Lines and levels of finished surface to be smooth and even, with regular falls to prevent ponding.
- Finished surface of paving to have an even overall texture. Leave in a clean state on completion.

320 COLD WEATHER:

- Do not use frozen materials or lay paving on frozen or ice covered surfaces.
- Do not lay coated macadam if the temperature of the laying surface is below 2 degC (or -1 degC on a rising thermometer).
- Do not lay rolled asphalt if the temperature of the laying surface is below 5 degC or the air temperature is below 0 degC.

351 DEVELOPER'S USE OF PAVEMENTS:

- Defer laying of final surfacing until as late as practicable in the contract.
- Immediately before laying final surfacing, thoroughly clean and make good the basecourse, allow to dry and uniformly apply, without puddles, a tack coat of sprayed bitumen emulsion of a suitable grade to BS 434: Part 1 at 0.5 to 0.5 litres/sq m. Allow emulsion to break completely before applying surfacing.

Q23 BOUND GRAVEL/HOGGIN PAVINGS

TYPE(S) OF SURFACING

110 HARD BINDING GRAVEL [_____]

- Granular sub-base: As section Q20 clause 210, thickness 100 mm.
- Blinding to sub-base: 25 mm coarse sand compacted to seal all interstices but allow free drainage.
- Wearing course: Predominantly angular material free from clay, but with sufficient grit to enable compaction.
- Thickness: _____
- Laying: Compact all layers evenly with a mechanical roller. [_____]

120 BLINDED GRAVEL [_____]

- Granular sub-base: As section Q20 clause 210, thickness 100 mm.
- Blinding to sub-base: 25 mm coarse sand compacted to seal all interstices but allow free drainage.
- Base course: 19 mm to 6 mm angular material to BS 882, table 3.
- Thickness: 25 mm.
- Wearing course: 6 mm to dust blinding layer of hoggin.
- Laying: Compact all layers evenly with a mechanical roller. [_____]

130 FINE HOGGIN [_____]

- Granular sub-base: As section Q20 clause 210, thickness 100 mm.
- Wearing course: Naturally occurring fine hoggin consisting of gravel, sand and clay, with a minimum of 85% by weight passing a 10 mm BS sieve.
- Thickness: 100 mm.
- Laying: Compact all layers evenly with a mechanical. [_____]

220 PROPRIETARY FIBRE REINFORCED BONDED CHIPPINGS [_____]

- Base: Granular sub-base as clause Q20/211, 150mm thick [_____]
- Wearing course: Fibredec laid as double dressing to a depth of 12mm
- Manufacturer and reference: Fibredec Ltd [_____]
- Aggregate: 10mm aggregate bottom dressing, 6mm aggregate surface dressing [_____]
- Colour: FD034 [_____]

PREPARATION/LAYING

310 TIMBER EDGING to paving type Q23 [_____]

- Softwood board 150 mm x 38 mm, fixed with galvanized nails to 50 mm x 450 mm long softwood pegs driven into the ground at 1200 centres.
- Top of pegs to be 25mm below the top of the edging board.
- Edging boards to be laid flush with finished ground levels and true to line and curves as shown on the relevant drawings.
- Preservative treatment: As section Z12 and British Wood Preserving and Damp-Proofing Association Commodity Specification C4.
- Type/Desired service life: CCA, 20 years.

- 330 HERBICIDE to paving Q23[]
Grub up all weeds and moss and apply an approved herbicide in accordance with section A34 prior to laying surfacing.
- 340 LAYING GENERALLY:
- Ensure surfacing materials do not block channels, gullies, etc.
 - Lines and levels of finished surfaces to be to the specified falls and accuracy to prevent ponding.
 - Finished surface to have an even overall texture.
Leave in a clean state upon completion.
- 350 COLD WEATHER:
- Do not use frozen materials or lay pavings on frozen or ice covered surfaces.
 - Do not apply cold bituminous surface dressings when ambient temperature is below 10 degC.
- 360A DRAINAGE FALLS: Unless specified otherwise, not less than:
- Sealed surfaces:
Falls and cross falls: 1:40
Camber: 1:50
 - Unsealed surfaces: 1:30.
- 390 PROTECTION FROM TRAFFIC: Restrict access to paved areas as necessary to prevent damage from site traffic and plant.

Q30 SEEDING/TURFING

GENERAL INFORMATION/REQUIREMENTS

- 120A CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable carry out seeding during April to October.
- 130 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.
- 140A WATER will be provided by the Developer for the execution of the Works and throughout the maintenance period.
- 142 WATERING GENERALLY:
- Ensure the full depth of topsoil is thoroughly wetted.
 - Use a fine sprinkler or oscillating spray.
- 146 WATERING: Water as necessary to establish a healthy sward.
- 150A DROUGHT CONDITIONS: If water supply is or is likely to be restricted by emergency legislation :
- Inform DCS without delay and obtain suitable water from alternative sources.
 - If seeding/turfing has not been carried out, do not do so until instructed.
 - The Developer is to bear the additional cost of alternative sources of water.
- No claims based on the unavailability of water will be entertained.
- 160A NOTICE TO DCS: Make 7 days notice to DCS to give him the opportunity of being present during:
- Application of herbicide
 - Application of fertilizer
 - Preparation of seed bed
 - Seeding or turfing
- 190 SUITABILITY OF TOPSOIL:
- Before commencing confirm with the DCS that the topsoil, after the specified preparation, will be suitable for seeding/turfing.

PREPARATION

- 210 HERBICIDE:
- Apply a suitable type to perennial weeds and allow period of time to elapse as recommended by manufacturer before cultivation.
- 240A COMPOST: One of the following spread over the surface prior to cultivation, at 1 Cubic metre of material per 4 square metres:
- Spent mushroom compost containing only well rotted manure, peat, chalk and residual mushroom growth.
 - Peat -free compost.
 - Composted green waste available from Hampshire County Council.

250A CULTIVATION:

- Break up any compacted topsoil to a depth of 150mm.
- Reduce top 100 mm of all topsoil to a tilt suitable for blade grading (10 mm down particles).
- Remove undesirable material brought to the surface including stones and clay balls larger than 25 mm in any dimension, roots, tufts of grass and foreign matter.
- Keep the seed bed free of weeds and rubbish during the period up to seeding.

260 GRADING:

- When topsoil is reasonably dry and workable grade to smooth, flowing contours, with falls for adequate drainage, removing all minor hollows and ridges.
- Unless otherwise stated, finished levels after settlement to be 25 mm above adjoining paving, kerbs, manholes etc.
- Topsoil levels may be adjusted by blade grading ensuring that there is nowhere less than 100 mm of topsoil. If the required levels cannot be achieved by movement of the existing soil, obtain instructions.
- No gradient should be greater than 30% to allow maintenance with machinery.

270 FERTILISER:

- Three to five days before seeding/turfing and before final cultivation apply both the following fertilisers evenly over the area to be seeded with amenity grass seed each at 70g/sq m, in transverse directions:
- Superphosphate with a minimum 18% water soluble phosphoric acid.
 - A sulphate of ammonia with a minimum of 20% nitrogen.

280 FINAL CULTIVATION:

- After grading and fertilising carry out further cultivation to reduce top 25mm to a fine firm seed bed with good crumb structure.
- Rake with chain harrow, drag mat or hand rake to a true, even surface, lightly firmed but not over compacted, removing all stones and earth clods more than 50mm in any dimension on general areas and 25mm on fine lawns.
- Extend cultivation into any adjacent existing grass areas to ensure full marrying-in of levels.
- Obtain approval of appearance of prepared soil areas before seeding/turfing.

- 281 MOWING STRIPS: Where grass abuts a wall or fencing a mowing strip must be provided to allow for maintenance. The mowing strip shall be hard surfaced, minimum 150mm wide, 150mm below the damp proof course and 25mm below the finished level of the grass after settlement.

SEEDING

310A GRASS SEED FOR VERGES AND AMENITY AREAS

- Mixture: Low maintenance mix containing no more than 60% of a suitable perennial rye grass.

- Supplier and reference: Any reputable seed supplier.
 - Rate of application: 35g/m²
- 312A WILDFLOWER SEED
- Mixture: Suitable for the soil type to be seeded.
 - Supplier and reference: Johnson's Seeds or other reputable seed supplier.
 - Rate of application: 3g/m²
- 319 QUALITY OF SEED FOR: ALL AREAS
- Purchase fresh seed for each growing season. Do not use seed purchased for previous seasons.
 - Use blue label certified seed varieties complying with EC regulations for purity and germination.
 - When requested, supply to DCS samples of mixtures as delivered to site or copy of original certificate of germination, purity and composition carried out by an Official Seed Testing Station.
- 330 SOWING:
- Sow seed in calm weather during mid March to mid May or September to mid November.
 - Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions.
 - Lightly harrow or rake.
 - On light soils roll and cross roll after seeding using a lightweight roller.
- 335 SOWING WILD FLOWER SEEDS:
- Sow seed in calm weather during mid March to mid May.
 - Thoroughly mix seed with fine lime-free dry sand and spread evenly at the specified rate(s) applied in two equal sowings in transverse directions.
 - Lightly harrow or rake in with a spring tined rake.
 - Firm the soil using a lightweight roller and water with a fine spray.
- 340 PRE-EMERGENT HERBICIDE FOR SEEDED AREAS
- Where soil has not been allowed to lie fallow apply a suitable pre-emergent herbicide immediately after sowing.

TURFING

- 405 CULTIVATED TURF FOR AMENITY AREAS
- Supplied by a Turfgrass Growers Association (TGA) member, to TGA quality standards.
 - Seed mixture sown: Low maintenance mix with no more than 60% of a suitable dwarf variety of perennial ryegrass.
 - Properties of soil used for turf production: Heavy loam.
- 420 DELIVERY AND STORAGE:
- Take all necessary precautions to avoid drying out and deterioration of turf.
 - Arrange supply of turf to avoid excessive stacking.
 - Do not stack to a height of more than 1 m.

- Turf which shows any signs of deterioration should be used without delay or laid out on topsoil and kept moist.

430A TURFING GENERALLY:

- Lay turf within 18 hours of delivery in spring or summer and within 24 hours of delivery in autumn or winter.
- Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Lay turf with broken joints, well butted up, working from planks laid on previously laid turf. Do not stretch turf.
- Use whole turves at edges. Trim to a true line.
- Adjust levels by taking out or infilling with fine soil, and ensuring full contact with the substrate.
- Consolidate by lightly and evenly firming with wooden beaters as the laying proceeds. Do not use rollers.
- Dress turf with finely sifted topsoil/peat/sand and brush well in to completely fill all joints.
- Thoroughly water the completed turf immediately after laying. Check by lifting a corner of turf that water has penetrated to the soil below.

450 NEWLY PLANTED TREES: Neatly cut away turf to a diameter of 800 mm around individual trees and leave soil exposed.

PROTECTING/WATERING/CUTTING

520 WATERING: During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler or oscillating spray to maintain healthy growth.

530 FIRST CUT OF TURFED AND SEEDED AREAS

- When grass is 80 mm high remove debris, litter and all stones and earth clods larger than 25 mm in any dimension, and when grass is reasonably dry, cut to approximately 40 mm high, using a rotary mower to avoid root pulling.
- Arisings: Rake off or collect in a grass box and remove from site.

590 CLEANLINESS: Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition at Practical Completion and after any maintenance operations.

PROTECTION/MAINTENANCE/MAKING GOOD DEFECTS BEFORE PRACTICAL COMPLETION

605 MAINTENANCE: Carry out the following operations from completion of seeding/turfing until Practical Completion.

610A FAILURES OF SEEDING/TURFING: Bare areas, areas of dead grass and wild flowers that have failed to thrive, which are apparent during the period stated in clause 605 must be made good by recultivation and reseeded/returfing at times agreed with the DCS. The seeding/turfing will

only be accepted as having reached Practical Completion when germination has proved satisfactory, given an even sward free from bare areas, erosion and settlement, and all weeds have been removed.

620A GRASSED AREAS:

Cut grass areas prior to Practical Completion, as necessary so that growth does not exceed 25mm high.

- Remove arisings off site to licensed tip.
- Remove all litter and debris.
- At the time of each cut, trim all grass edges round the base of trees, manholes, etc. and remove arisings. Sweep all adjoining hard areas clear of cuttings and remove.
- Keep the sward substantially free of broad leaved weeds by applying a suitable selective herbicide.
- Water as necessary to establish a healthy sward.
- Repair all erosion and settlement, and re-seed as necessary.

650A GRASSED AREAS WITH PERENNIAL WILD FLOWERS:

- Before each cut remove all litter and debris.
- In early July cut to a height of 50mm and remove all arisings. Continue to cut every month, or so that the height of growth does not exceed 100mm at any time and remove arisings. Carry out a final cut in November.
- At the time of each cut, trim all grass edges, round the base of trees, manholes etc. and remove arisings.
- Sweep all adjoining hard areas clear of cuttings and remove.

680 FERTILIZER FOR TURFED AREAS

- In March apply 15:10:10 Spring turf fertilizer at 35 g/sq m or equivalent.
- In September apply 5:10:10 Autumn turf fertilizer at 50 g/sq m or equivalent.

690 EDGES TO SEEDED AREAS:

When seeded areas are well established, form edges to planting beds and around trees with a suitable edging tool, to clean straight lines or smooth curves. Draw back soil from edges to permit use of edging shears and remove all arisings.

Q31 PLANTING

GENERAL INFORMATION/REQUIREMENTS

112A SITE CLEARANCE:

- Remove debris, decayed vegetation, contaminated topsoil, and stones with largest dimension exceeding 50 mm.
- Contamination includes subsoil, rubble, fuel, lubricants or other substances injurious to plant growth
- Grub up and dispose of large roots without undue disturbance of soil and adjacent areas.
- Apply a suitable non residual herbicide to all weed growth, brambles and regenerative material in proposed planting areas.

118 SOIL CONDITIONS:

- Cultivate and plant into moist friable soil that is not waterlogged.
- Do not plant into frozen or snow covered soil without prior approval of the DCS. Provide adequate additional root protection and prevent planting pits and backfill materials from freezing.

120A CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant when the ground is frost-bound, covered by snow, excessively wet or waterlogged or in strong winds. Plant only during the following periods:

- Deciduous trees and shrubs: November 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.

130 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.

140A WATER will be provided by the Developer for the execution of the Works and throughout the maintenance period.

145 WATERING: Water as necessary to ensure the establishment and continued thriving of all planting.

150A DROUGHT RESTRICTIONS: If water supply is or is likely to be restricted by emergency legislation

- Inform DCS without delay and obtain suitable water from alternative sources.

- If planting has not been carried out, do not do so until instructed.
- 160 NOTICE TO DCS: Provide a minimum 7 days notice of the following operations, to give the DCS the opportunity of being present:
- Application of herbicide
 - Application of fertiliser
 - Delivery of plants
 - Planting of shrubs
 - Planting of trees into previously dug pits
- 165A PREPARATION, PLANTING AND MULCHING MATERIALS GENERALLY.
- Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- 200A TREES/PLANTS GENERALLY:
- Materially undamaged, sturdy, healthy, vigorous, of good shape and without elongated shoots.
 - Grown in a suitable environment and hardened off.
 - Free from pests, diseases, discoloration, weeds and physiological disorders.
 - Budded or grafted plants to be bottom worked, unless otherwise approved.
 - With balanced root and branch systems, root system and condition in accordance with the relevant part of the National Plant Specification.
 - True to name.
- 215 TREES/PLANTS: Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification.
- 217A SEMIMATURE TREES: To BS 4043, sizes and other criteria as scheduled.
- 225 BULBS/CORMS/TUBERS:
- Firm, entire, not dried out or shrivelled, visually free of pests, diseases and fungus.
 - Remove from packaging immediately. If necessary, store for the minimum period of time in a well ventilated, dark, covered location at 18-21degC, away from vehicle exhausts and fumes.
- 235 CONTAINER GROWN PLANTS:
- Supplied in a growing medium with adequate nutrients for the plant to thrive until permanently planted.
 - Centred in the container, firmed and well watered.
 - With root growth substantially filling the container, but not root bound, and in a condition conducive to successful transplanting.
 - Grown in the open for at least two months before being supplied.
 - Grown in containers with holes adequate for drainage when placed on any substrate commonly used under irrigation systems.
- 250 SUPPLY OF TREES/PLANTS: Unless specified otherwise, obtain

trees/plants from suppliers listed in the Horticultural Trades Association Nursery Certification Scheme.

- 260A **SUBSTITUTES:** Substitutions will only be allowed with the DCS's approval.
- 265A **PLANT/TREE HANDLING STORAGE AND TRANSPORT:**
- Comply with 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: shall be in accordance with CPSE 'Handling and establishing landscape plants' Part II. It shall protect the plants from heating or drying out and only be removed immediately before planting.
- 267 **DIPPING BARE ROOT MATERIAL.**
Treat all bare root material with Sealure Root Dip immediately it is received from the grower. Prepare root dip by diluting at a ratio of one part root dip to three parts water. Immerse the whole of the root system and allow to dry.
- 270A **PLANTING GENERALLY:**
- Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
 - Plant upright or well balanced with best side to front.
 - All container grown root systems and root balls shall be thoroughly soaked and all containers and root ball wrappings removed prior to planting.
- 285 **PROTECT** existing grass during planting operations by laying boards or tarpaulins. Do not place excavated material directly on to grass.
- 290 **SURPLUS MATERIAL**, including subsoil, stones, debris, wrapping material, canes, ties, temporary labelling and prunings to be removed from site.

PREPARATION OF PLANTING BEDS/PLANTING MATERIALS

- 305 **WEED CONTROL**
Prevent weeds from seeding and perennial weeds from becoming established, by applying Glyphosate or similar approved. Allow a minimum of 2 weeks to elapse before cultivation. Ensure that spray does not drift on to surrounding grass/vegetation.
- 341 **PEAT:** Do not use peat or products containing peat.
- 355A **SOIL CONDITIONER/AMELIORANT:** Peat-free compost only to be used.
- 375A **CULTIVATION:**
- Break up any compacted topsoil to full depth.

- Within a few days before planting, but in suitably dry weather and ground conditions, cultivate top 300 mm of all planting beds, using suitable plant to loosen, aerate and break up the soil into particles of 2-8 mm.
- Create smooth planting beds, uniformly firmed and evenly graded.
- Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.
- Keep planting beds free of weeds and rubbish during the period up to planting.
- Do not dig or cultivate within the root spread of trees and shrubs to be retained.

395 WATER STORING POLYMER GRANULES:

Manufacturer and reference: Broadleaf P4

Agricultural Polymers International Ltd
Waverley House
Waverley Road
Gloucester
Tel: (01452) 521733

397 ROOT DIP:

- Manufacturer and reference: Scanure Root Dip
Algimure Products Ltd
Belts Yew Green
Tonbridge Wells
Kent
TN3 9BQ
Tel: (01892) 750664

PLANTING SHRUBS/HERBACEOUS PLANTS/BULBS

- 404 **SETTING OUT:** Space plants evenly so that, when established, they completely fill the area indicated as precisely as possible. The extent of the area shall first be defined by plants spaced around the perimeter. The remaining plants shall then be used to fill the centre of the area in an informal manner, avoiding straight lines and regular geometric patterns.

405A SHRUB PLANTING PITS:

- Excavate 300mmx300mmx300mm deep or sufficiently large to accommodate the rootball comfortably and retain topsoil for re-use.
- Break up bottoms of pits.
- Backfill with a mix of three parts excavated topsoil to one part peat free soil ameliorant to a level 25mm above adjacent ground and 10mm above the nursery mark on the plant

- 410 **CONFERS/EVERGREENS.** Dip in anti-desiccant before delivering to site. Spray with anti-desiccant soon after planting. Do not apply in rainy or frosty weather.

- 435 GROUND COVER PLANTS: When using climbing plants as ground cover, remove canes or other supports and spread stems, pinning to ground where appropriate to ensure good contact to encourage rooting and early establishment.
- 445 BULBS/CORMS/TUBERS:
- Plant so that the top of the bulb/corm/tuber is at a depth of approximately twice its height with base in contact with bottom of hole. Backfill with finely broken soil and lightly firm to existing ground level.
 - When planting in existing grassed areas neatly remove a plug of turf and replace after planting. Scatter naturalized bulbs/corms/tubers at random over the allocated area and plant where they fall.
- 455 WILD FLOWER PLUG PLANTING:
- Keep plants watered and in the shade until planted. Do not allow to dry out.
 - Remove brambles and coarse weeds etc. from planting sites. Where planting in grass, close mow to approximately 50 mm and remove arisings.
 - Plant into bare soil patches, of 150-300 mm diameter, between tufts of grass. If such patches do not occur as a result of mowing long grass, remove grass and weeds to create two planting sites per sq m, of 200 mm diameter.
 - Plant each plug into a hole created by a dibber specially designed to suit the plug size and shape and to create a chel at the bottom of the hole. Gently firm the plant into the hole.
- 465A CLIMBING PLANTS:
- Plant 150 mm clear of wall/fence etc. with roots spread outward. Lightly secure branches to support. Retain canes of plants which are too small to reach supports.
 - Where no climber support is specified, the climber shall be planted with its cane inclined towards the wall or fence.
- 470 HEDGES:
- Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
 - Plant shrubs in trenches large enough to take full spread of roots. Set out plants evenly as scheduled.
- 475A BACKFILLING MATERIAL:
- A mixture of 3 parts excavated topsoil to one part peat-free compost.
- 480A AFTER PLANTING:
- Water plants thoroughly immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants.
 - Water at rates in accordance with clause Q35:155A.
 - Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle rammers and no hollows.
 - Apply top dressing of slow-release fertiliser evenly over length of hedgerow at a rate of 35g per plant or 100g/m² over the planting bed.

485A MULCHING PLANTING BEDS:

- Material: Medium grade bark mulch (25-50mm), free of pests, disease, fungus and weeds.
- Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds to a depth of 75mm.

PLANT PROTECTION: Ensure that protection methods do not impede the natural movement of plants or restrict growth.

PLANTING TREES

502 SETTING OUT: Mark the planting position of all trees on site, using a peg for each tree.

505A TREE PITS:

Where trees are planted in established grass areas, strip the turf, lay aside and subsequently break up and spread in the bottom of the pit after excavation.

- 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.

Size(s):

Semi-Mature	1200x1200x1000mm deep
Extra Heavy Standard	1000x1000x750mm deep
Selected Standard	750x750x450mm deep
Feathered	450x450x450mm deep

- Break up bottoms of pits to a depth of 150mm and scarify sides.

510 CONIFERS/EVERGREENS. Dip in anti-desiccant before delivering to site. Spray with anti-desiccant soon after planting. Do not apply in rainy or frosty weather.

525A SEMIMATURE TREES:

- Prepare roots and transplant to BS 4043 unless specified otherwise.
- Backfilling material: As clause 585.
- Support: Approved proprietary underground guying system which supports, secures and anchors the trees in an upright position.

535A STAKING GENERALLY:

- Stakes: Softwood, peeled chestnut, larch or oak, free from projections and large or edge knots and with pointed lower end.
- Nails: To BS 1202:Part 1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- Minimum stake sizes:

Tree/shrub size/type:	Overall length of stake:	Cross section of stake:
Extra Heavy/Heavy Standard	3250mm	75mm
Selected Standard/Feathered	2100mm	75mm
- Ties Rubber with solid rubber spacer, hollowed on two sides and twice

slotted for tie. Must be of adequate width for the type of tree to be secured and fitted with the appropriate spacers to ensure a clear space of approximately 50mm between plant and stake to prevent chafing of stem and branches.

545A LONG SINGLE STAKING FOR HEAVY STANDARD TREES

- Position stake close to tree on windward side and drive vertically at least 300 mm into bottom of pit before planting. Consolidate material around stake during backfilling.
- Cut stake off just below lowest branch of tree.
- Secure tree firmly but not rigidly to stake with at least two rubber ties. Use three ties if necessary to prevent tree touching stake. Position top tie 50 mm below top of stake and lower tie approximately 300mm above ground level

555A SHORT SINGLE STAKING FOR SELECTED STANDARD/FEATHERED TREES

- Position stake close to tree on windward side and drive vertically at least 300 mm into bottom of pit before planting. Consolidate material around stake during backfilling.
- Cut stake to approximately 450 mm above ground level.
- Secure tree firmly but not rigidly to the stake with rubber tie within 50 mm below top of stake.

575A SHORT DOUBLE STAKING FOR: EXTRA HEAVY STANDARD TREES

- Drive stakes vertically at least 300 mm into bottom of pit on either side of tree position before planting. Consolidate material round stakes during backfilling.
- Cut stakes off just below lowest branch of tree.
- Firmly fix cross bar on windward side of tree and as close as possible to stem.
- Secure tree firmly but not rigidly to cross bar with rubber tie, positioned on the cross-bar so as to maintain the tree in a secure and upright position. Strap the around tree and spacer and nail to cross bar with galvanised nails.

585 BACKFILLING MATERIAL

- Semi-Mature/Extra Heavy Standard: mix of excavated topsoil, peat-free compost and Broadleaf P4. Homogenously mix P4 into planting medium at a rate of 1 gram per litre planting pit capacity. Where rootball trees are to be planted, reduce the amount of P4 applied by 25% to allow for the volume of the rootball.
- Selected Standard/Feathered: mix of excavated topsoil and Broadleaf P4. Homogenously mix P4 into topsoil at a rate of 1 gram per litre planting pit capacity.
- Backfilling: Break down the backfill mixture so that it can carefully be packed around the roots and lightly consolidated in 150mm thick layers, to a finished level 50mm above adjacent ground and 25 mm above nursery soil mark on tree. Gently shake the tree during backfilling to ensure that all the interstices are filled.

- Accessories: Semi-Mature Trees. Watering system of 100mm diameter perforated plastic pipe including extensions to surface and cover cap.
- 595 TREE PROTECTION: Ensure that protection methods do not impede the natural movement of trees or restrict growth.
- Tree shelters
Size/Colour: 1200mm high x 80mm wide/Green
Support: 1500x32x32mm softwood stake
- 598 AFTER PLANTING
- Water trees thoroughly immediately after planting
 - Water in accordance with clause Q35:155A
 - Apply top dressing of slow-release fertiliser evenly over top of planting pit at a rate of 100g per tree.
 - Apply mulch in accordance with Q31:485A to an area 1m diameter around the base of each tree.

WOODLAND PLANTING

- 605 EXISTING VEGETATION/WEED CLEARANCE
- Clear surface vegetation
 - Remove arisings
- 615A EXISTING TREES/SEEDLINGS/COPPICE SHOOTS
- Retain existing trees and seedlings unless otherwise instructed
- 617 REMOVING TREES AND HEDGES
- Before starting work verify with the DCS which trees and hedges are to be removed.
 - Cut down and dispose of all wood
 - Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap
 - Tree stumps: to be taken out 300mm below surface
- 635 NOTCH PLANTING
- Make a vertical 'F', 'L', 'T' or 'H' notch deep enough to accommodate full depth of roots.
 - Plant tree, close the notch with the root collar at ground level and firm the soil.
- 645 PLANTING IN TURF
- Cut and upturn a turf of minimum 500mm square.
 - Make a vertical slit from the centre of the turf, to the side away from the prevailing wind, deep enough to accommodate full depth of roots.
 - Plant tree, close the notch with the root collar at ground level and firm the soil.

PROTECTING/MAINTAINING/MAKING GOOD DEFECTS BEFORE PRACTICAL COMPLETION

- 710 MAINTENANCE:
- Carry out the following operations from completion of planting until the Certificate of Practical Completion is issued or as instructed by the DCS.
 - Make visits at approximately monthly intervals during the growing season and as necessary to fulfil the requirements of this specification.
- 715 MAINTENANCE OF PLANTING AREAS:
- Keep all bare soil areas completely weed-free during the period between ground preparation and plant operations.
 - Maintenance of the planting areas shall include watering, weeding, cultivating, control of insects, fungus and other diseases by means of spraying with a pesticide, pruning, repair of minor wash-outs and other horticultural operations essential to the proper growth of the plants and for keeping the site neat in appearance.
- 717 PLANT FAILURES: Trees, transplants, whips and shrubs which are found to be defective at Practical Completion or four weeks after first leafing out shall be replaced as soon as is reasonably practicable.
- 719 VANDALISM: Make good at Developer's expense, all loss or damage arising from any cause prior to Practical Completion.
- 730 PROTECTIVE FENCING:
- Protect newly planted areas with 1.2m high chestnut pale fencing where requested by the CA.
 - Maintain fencing until final completion then remove and reinstate ground. Make good any damage to planting until area is accepted. The fencing will remain the property of the Developer.
- 740 CLEANLINESS: At completion and at each visit, remove soil and other debris from all hard surfaces and grassed areas and leave the works in a clean tidy condition.
- 760 PLANTING MAINTENANCE - PRUNING: Prune as soon as possible after planting, to remove dead or dying and diseased wood, to promote healthy growth and natural shape. Prune trees to favour a single central leading shoot, unless specified otherwise.
- 765 PLANTING MAINTENANCE - WATERING: Water in accordance with Clause 433A and 438A, using a fine rose or sprinkler until full depth of topsoil is saturated.
- 767 PLANTING MAINTENANCE - PESTICIDES: Deal immediately with all infestations from pests, fungi etc. using an approved pesticide, in accordance with the manufacturer's instructions.
- 770 WOODLAND PLANTING MAINTENANCE: Between planting and

Practical Completion carry out maintenance of the woodland planting areas as follows:

- Water as necessary to prevent plants wilting.
- Refirm soil around any loose plants, without compacting.
- Maintain a weed free area around each tree and shrub, minimum diameter of 1 m or the surface of the original planting pit, whichever is the larger.
- 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.

Q35 WORKS DURING THE MAINTENANCE PERIOD (FROM PRACTICAL COMPLETION TO FINAL COMPLETION)

GENERALLY

- 110 NOTICE TO DCS: Provide 2 days notice of the following operations, to give DCS the opportunity of being present:
Application of herbicide
Watering
Each site maintenance visit.
- 130 REINSTATEMENT: Reinstate to original condition and within a reasonable period of time (according to season), any damage or disturbance occurring during the work, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings.
- 150 WATERING GENERALLY:
- Obtain DCS's approval before using a supply other than potable mains water.
 - Ensure the full depth of topsoil is thoroughly wetted.
 - Use a fine rose or low pressure hose where appropriate to avoid damaging or loosening plants.
 - Where necessary, loosen soil or form depressions around the stem base of plants to ensure that water reaches the root zone instead of dispersing on the surface.
- 155A WATERING: Water as necessary to ensure the establishment of strong and healthy plants and grass, and allow for at least six waterings all plants from May to the end of September. This requirement shall not relieve the Developer of their general responsibility to take such precautions, including additional watering if necessary, to ensure the establishment of strong and healthy plants.
- 160A DROUGHT CONDITIONS: If water supply is or is likely to be restricted by emergency legislation inform DCS without delay and obtain suitable water from alternative sources. The Developer is to bear the additional cost of alternative sources of water. No claims based on the unavailability of water will be entertained.
- 170 DISPOSAL OF ARISING GENERALLY: unless specified otherwise, dispose of arisings from all specified operations by removal to a registered tip.
- 180 CHIPPING OR SHREDDING ON SITE: of materials arising from the work will only be permitted with the approval of the DCS.
- 190 LITTER COLLECTION: Collect and remove all extraneous rubbish not arising from the contract work and detrimental to the appearance of the site, including paper, packaging materials, bottles, cans, and similar debris.
- 195 PROTECT EXISTING GRASS: during maintenance operations by laying

boards or tarpaulins. Do not place excavated material directly on to grass.

- 197 **CLEANLINESS:** Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition after maintenance operations.

GRASSED AREAS

220A **GRASS CUTTING GENERALLY:**

- Remove litter, rubbish and debris from grassed areas before mowing
- On fine grass areas remove all stones greater than 25mm in any dimension.
- Cut to a neat even finish, without rutting or compaction of the surface, especially when ground conditions are soft.
- Leave edges neat and well defined.
- Neatly trim all grass edges round the base of lighting columns, manholes, and the like.
- Sweep adjoining hard areas clear of arisings and remove.
- Do not cut during periods of drought, or when ground conditions or grass are wet, without the prior agreement of the DCS.
- Grass cuttings shall not be collected but shall be left spread evenly over the grass area.

- 225 **FREE STEMS:** Do not allow mowing machinery closer than 100 mm to any tree stem. Avoid damage to tree stems by nylon filament rotary cutters or other mechanical tools.

- 230 **GRASS CUTTING MACHINES:** must be appropriate to the grass cutting operation required, taking due regard to grass type, mowing specification, ground contour and condition. Machinery is to be well maintained and correctly adjusted to give a clean even cut without damaging the grass.

- 235 **BULBS AND CORMS:** Where these occur in grassed areas in the locations described or shown on drawings, do not commence the maintenance cutting of bulb planted areas until 6 weeks after they have flowered, or as instructed.

- 270 **MOWING ROUGH GRASSED AREAS:** Maintain height of grass between 25 and 50 mm. Cut when necessary using a rotary mower and leave arisings spread evenly over the surface.

- 275 **CUTTING SUMMER FLOWERING WILD FLOWER MEADOWS:** Cut monthly to a height of 75-100mm during the spring then leave uncut between July and September. Final cut in late September and leave arisings for between 48 and 72 hours after cutting and then rake up and remove.

- 280 **CUTTING SPRING FLOWERING WILD FLOWER MEADOWS:** Leave uncut until early July and then cut monthly to a height of 100mm until the end of the growing season. Leave arisings for between 48 and 72 hours after cutting and then rake up and remove.

- 290 **ROLLING:** Roll with self propelled or gang roller to consolidate grass area and reduce frost heave.

- 310 RE-FORMING GRASS EDGES:
- Re-form edges abutting paths, borders, manhole covers and the like with a suitable edging tool to clean straight lines or smooth flowing curves. Form a clean edge, sloping slightly back from vertical.
 - Draw back soil from edges to permit the use of edging shears and remove arisings.

322 JOINTS fill opened joints between turf and fine soil.

- 330 SELECTIVE HERBICIDE:
- Spray with a suitable selective herbicide.
 - Do not spray wild flower or hulk and corn planted areas.

SHRUBS/TREES/HEDGES

- 510 TREE STAKES AND TIES: Inspect at each maintenance visit and immediately after strong winds, and carry out the following:
- Check stakes for looseness, breaks and decay and replace as necessary to original specification. If a tree with a defective stake has grown sufficiently to become self supporting, inform DCS and, if instructed, remove stake(s) and fill the hole(s) with lightly compacted soil.
 - Adjust, refix or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing. Where chafing has occurred, reposition or replace ties to prevent further chafing.
 - Where stakes are longer than half the height of the clear stem of the tree, cut the stake to this height in spring and retie to tree firmly but not tightly with a single tie.
 - Remove redundant tapes, tags, ties, labels and other encumbrances.
 - Remove stakes and ties as instructed by DCS.
- 515 TREE GUY WIRES: Inspect at each maintenance visit and immediately after strong winds, and carry out the following:
- Replace or re-secure loosened or missing guy wires.
 - Adjust tension of guy wires to suit stem growth and to provide correct and uniform tension.
 - Remove guy wires as instructed by DCS.
- 520 REFIRMING: Ensure that trees and shrubs remain firmly bedded after strong winds, frost heave and other disturbances. Refirm by treading around the base. 'Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary, and refirmed.
- 525 TREE GUARDS: Inspect and adjust, refix or replace loose or defective guards to original specification and to prevent chafing.
- 530 TREE SHELTERS:
- Adjust, refix or replace loose or defective shelters to original specification

- and to prevent chafing.
 - Remove shelters as instructed by DCS.
- 540 PRUNING GENERALLY:
- Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.
 - Thin, trim and shape appropriately to each species, location, season, and stage of growth, leaving a well balanced natural appearance.
 - Use clean sharp secateurs, hand saws or other tools approved by the DCS. Trim off ragged edges of bark or wood with a sharp knife.
 - Remove branches without damaging or tearing the stem.
 - Keep wounds as small as possible and cut cleanly back to sound wood. Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Prune larger branches neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
 - Notify the DCS of any disease or fungus. Do not apply growth retardants, fungicide or sealant unless instructed by the DCS.
- 545 PRUNING OF EXCESSIVE OVERHANG: Remove as instructed by DCS any growth encroaching onto grassed areas, paths, roads, signs, sightlines and light fittings.
- 550 PRUNING OF EXCESSIVE HEIGHT: Remove excessive height as instructed by DCS.
- 555 PRUNING TREES AND SHRUBS: Except where specified otherwise, prune as recommended by BS 7370:Part 4, clauses 3.6.3 to 3.6.5.
- 575 PRUNING ORNAMENTAL SHRUBS:
- Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
 - Remove all suckers by cutting back level with the source stem or root.
- 580 PRUNING FLOWERING SPECIES:
- Winter flowering shrubs in 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 in early spring to encourage basal growths and a balanced, compact habit.
- 605 TRIMMING SLOWLY ESTABLISHING HEDGES:
- Cut back hard in June and September to encourage bushy growth down to ground level.
 - Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

- 620 REMOVAL OF DEAD PLANT MATERIAL: 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:
- Remove excess growth by pruning, to ensure that (in addition to the requirements of clause 545 where relevant) signs, light fittings, doors and windows are kept clear at all times.
 - Attach insecure growth to supporting wires or structures.
 - Check and repair as necessary supporting structures of climbing plants.
- 635 REINSTATEMENT OF PLANTING:
- Remove dead and damaged plants and those that have not developed full foliage throughout their branches or are not fully healthy, as identified during joint inspections in September and replace in the following planting season.
 - All replacements at Developer's expense including plants from nominated suppliers.
 - Carefully move any mulch/matting materials to one side and dig over the soil, leaving it fit for replanting. Take care not to disturb roots of adjacent plants.
 - Replace plants, using pits and plants which comply in every respect with the original specification.
 - Water-in if instructed by DCS.
 - Agree details of replacement plants with DCS before ordering.
- 637 LOSSES DUE TO DROUGHT OR HERBICIDE DAMAGE:
- All replacements at Developer's expense.
 - No claims based on the unavailability of water shall be entertained.
- 638 LOSSES DUE TO VANDALISM
- All replacements at the Developer's expense.
- 655 WEED CUTTING BY HAND OR MACHINE:
- Completely and cleanly cut down all undesirable grass, brambles and herbaceous growth to a maximum height of 25 mm.
 - If herbicides are to be used, remove arisings before applying.
- 670A WEED CONTROL OF SHRUB BEDS WITH SUMMER HERBICIDE:
- Apply glyphosate or similar suitable foliar acting herbicide in accordance with manufacturer's instructions.
 - Re-apply as necessary to keep planting areas weed free at all times (Minimum 4 visits per year).
 - Any weeds growing immediately adjacent to plant stems shall be removed by hand.
 - Allow the recommended period before clearing arisings.
- 672 WEED CONTROL OF WOODLAND, THICKET PLANTING AND TREE BASES WITH SUMMER HERBICIDE
- Apply glyphosate or similar suitable foliar acting herbicide in accordance with

manufacturer's instructions.

- Maintain a weed-free area around each tree and shrub, minimum diameter the larger of 1m or the surface of the original planting pit.
- Any weeds growing immediately adjacent to plant stems shall be removed by hand.

687 SETTLEMENT: Make good immediately on their occurrence, any settlements, gullies or minor wash-outs in the planted areas.

690 MAINTENANCE OF MULCH:

- Top up with medium grade mulch to thickness of 75 mm.
- Sweep up and replace mulch spilling onto adjacent areas and, if not contaminated with weeds or rubbish, return to planted area.
- Remove weeds growing on or in mulch by hand weeding or herbicide.

TREE WORK

810A TREE WORK GENERALLY:

- Before starting work verify with DCS which trees, shrubs and hedges are to be removed or pruned.
- Avoid damage to neighbouring trees, plants and property.
- Carry out all works affecting trees in accordance with the relevant recommendations of BS 3998, unless otherwise specified or instructed by DCS.
- Comply with Forestry and Arboriculture Training and Safety Council Safety Guides.
- When removing branches, cut as shown in Arboricultural Association Leaflet No 8 'Mature tree maintenance'.
- Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
- Leave trees with a well-balanced natural appearance appropriate to the species.
- Work involving chain saws must be carried out by holders of a Certificate of Competence.
- Tree work must be carried out by a member of the Arboricultural Association.

820 PREVENTION OF WOUND BLEEDING: Comply with the recommendations of BS 3998, clause 8.

825 PREVENTION OF DISEASE TRANSMISSION: Comply with the recommendations of BS 3998, clause 9 and Appendix B.

830A CLEANING OUT AND DEADWOODING: Remove:

- Dead, dying, or diseased wood, broken branches and stubs.
- Rubbish, wind blown or accumulated in branch forks.
- Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
- Climbing plants eg ivy.

- Crossing and/or rubbing branches.
Note: Any fungal growths and fruiting bodies should be left in-situ and reported to DCS.
- 835A CUTTING AND PRUNING GENERALLY:
- Use appropriate well maintained sharp tools.
 - For final pruning cuts:
 - - Do not use chainsaws on branches of less than 50 mm diameter.
 - - When using handsews, cut in one continuous operation to form a smooth cut surface.
 - - Do not use anvil type secateurs
 - Remove branches without damaging or tearing the stem.
 - Keep wounds as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
 - Cut at a fork or at the main stem to avoid stumps wherever possible.
 - Remove large branches in small sections and lower to ground with ropes and slings.
 - Do not cut into live wood when removing dead branches and stubs.
 - Notify the DCS of any disease or fungus. Do not apply fungicide or sealant unless instructed by the DCS.
- 855 CUTTING TREE ROOTS:
- Excavate using hand tools only.
 - Do not cut roots in the protected area without approval of the DCS. The protected area is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
 - Notify DCS and seek instruction if roots exceeding 50 mm in diameter are exposed.
 - Form clean smooth cuts with a hand saw, minimizing the wound area and avoiding ragged edges. Pare cut surfaces smooth with a sharp knife.
 - Cover cut roots with clean sharp sand prior to backfilling with original topsoil.
- 865 BARK DAMAGE:
- Do not attempt to stop sap bleeding from wounds
 - Inform DCS if liquid or flux is observed oozing from apparently healthy bark.
 - Gently remove ragged edges and remove splintered wood from deep wounds, but keep wounds as small as possible.