

# **SPECIFICATION FOR SOFT LANDSCAPE WORKS**

**Lu.01**

Project:

**LUCAN COMMUNITY COLLEGE**

Prepared on behalf of

**ETB DDL**

by

DERMOT FOLEY LANDSCAPE ARCHITECTS

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REVISIONS: **A** 07.01.2020 Volume A.2.4. note added to cover page.

**B** 03.10.2022 Q30, Q31 revised

Specifications included in this document:

Q30 Turfing/Seeding

Q31 External Planting

Q35 Landscape Maintenance

**Volume A.2.4.**

**ISSUED FOR:** INFORMATION/BILLING/PLANNING/**TENDER**/CONSTRUCTION

## 10 GENERAL SUMMARY

**Employer:**

*EDB DDL*

**Landscape Architect Name & Address:**

*Dermot Foley Landscape Architects, Argus House, Malpas Street, Blackpitts, Dublin 8.  
Tel: +353 1 4545148, email: info@dermotfoley.com*

This specification relates to the proposed works at Lucan Community College, Lucan, Co. Dublin, and should be read in conjunction with documents issued by Dermot Foley Landscape Architects and documents issued by Wejchert Architects, DOBA, KSN and others.

Please note in relation to this tender document; where reference is made to a particular make, source, process, standard, trademark, type or patent that this is not to be regarded as a de facto requirement. In all such cases it should be understood that the reference in question is accompanied by the words "or equivalent".

**CE MARKING:** The EU Construction Products Regulation (No. 305/2011 - CPR) requires that construction products that are covered by a harmonised European product standard or are required to conform to a European Technical Assessments should normally have a CE marking. All products specified shall carry the appropriate CE marking as required by the EU Construction Products Regulation (No. 305/2011 - CPR). The CE marking shall include reference of the product standard and the levels or classes of performance being declared against some or all of the characteristics covered by the standard. The CE marking shall be on the product, its label, packaging or accompanying documentation. Relevant documentary evidence (i.e. an EC Declaration of Conformity, which must contain the following information: manufacturer's details (name and address, etc.); essential characteristics for the product; compliance with appropriated European standards and performance data; if relevant the identification number of the Notified Body; and a legally binding signature on behalf of the manufacturer.) shall be submitted to the CA on request and shall be incorporated into the O&M and H&S manuals upon project completion. All product CE Certificates and Declarations of performance are to be provided before production of shop drawings. Such certificates will be signed, dated and supported by any ancillary certificate where required (i.e. Fire test reports, etc). Copies shall be retained and provided for insertion in to the H&S and O&M manuals.

### Q30 TURFING/SEEDING

To be read with Preliminaries/General conditions.

#### GENERAL INFORMATION - REQUIREMENTS

- 100 USING HERBICIDES AND PESTICIDES:  
No herbicides, pesticides or any other chemicals shall be used without the written permission of the Employer.
- 110 TOPSOIL: (REFER ALSO TO APPENDIX 1)
- Topsoil for all areas shall be supplied, delivered, drawn and spread by the Main Contractor. Where additional topsoil is required it shall comply with the provisions of Appendix 1 and shall be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, to BS 3882.
  - By commencing works on site the Landscape Contractor shall be deemed to have accepted the topsoil and its suitability for compliance with this and any other specification issued for planting, seeding and maintenance.
  - Where the existing topsoil does not conform to any clause of this specification, or has deteriorated as a result of poor storage not in accordance with this specification, or has not been approved by the Landscape Architect immediately before re-spreading, import additional topsoil to satisfy the requirements of the specification.
  - Where required to comply with this specification additional topsoil shall be imported to site. All imported topsoil shall be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, to BS 3882.
  - Imported topsoil shall conform with the specification included in Appendix 1 of this document.
  - Immediately before planting supply and spread topsoil to BS 3882 to various depths as outlined in this document and on drawings.
  - Topsoil shall be free from stones over 40mm in any direction. Stones over 20mm shall not exceed 10% by weight. The soil shall be free from subsoil, sods, roots of trees and shrubs and rubbish.
  - Topsoil shall be from the original surface layer of grassland or cultivated land to a maximum depth of 150mm. Visible presence of fibrous roots and plant remains will be required. Soils from woodland, heathland, bogs, sites subject to water logging or contaminated land will not be acceptable.
  - Topsoil shall be free from any parts of persistent weeds including dock, creeping thistle, stinging nettle, ragwort, bindweed, couch grass and Japanese knotweed.
  - If there is any evidence of *Fallopia japonica* (Japanese knotweed) or any invasive plant species as listed in the relevant legislation, during the works period or the defects liability period, the entire 'planted area' within which the weed is present shall be excavated and replaced at the Contractor's expense. 'Planted area' is defined as an area sharing the same continuous volume of topsoil, uninterrupted by hard standing of any kind.
  - Before topsoiling remove all stones, rubble and rubbish over 40mm in any direction from the surface of the subsoil formation. Excavate any areas polluted by oil or chemicals and make good.
  - All topsoil will be inspected by the Landscape Architect prior to spreading.
  - Spread topsoil by hand under dripline of existing trees.
  - Topsoil in dry conditions only. Do not move or cultivate topsoil in waterlogged conditions or where the moisture content of the soil is such that structural damage of the topsoil would occur.
  - The Contractor shall minimise damage to the topsoil by limiting machinery runs to the minimum requirement.
  - It is the Contractor's responsibility to assess the depth and quality of the topsoil and its fitness for planting the scheduled range of plant species for planting and seeding. By planting or seeding into the soil, the Contractor approves, accepts and takes responsibility for the topsoil.
  - Comply with Clauses 160 and 205 of this document.

- 111 TOPSOIL STRIPPING FROM OTHER SITES FOR USE ON THIS PROJECT:
- Provide catchment drains or ditches to collect excess run-off and prevent water entering from adjacent land. Remove scrub as well as top growth by cutting using flail or swipe mowers. Where turf is excessively thick, plough, disc harrow, and reduce vegetative content by weathering and cultivation.
  - Strip topsoil from all areas liable to disturbance of any kind, including building works, roads, underground services, all temporary access routes, compounds and storage areas. Strip the full designated working area, and any other areas liable to encroachment and traffic.
  - Do not run machinery over ground before stripping.
  - Strip the full depth of sod and topsoil to maximum 150mm. Avoid stripping into the subsoil layers.
  - Remove and dispose of, off site, excess topsoil stripped from the site.
  - Do not disturb any ground within the dripline of existing trees.
- 112 SITE CLEARANCE, EXCAVATION, RIPPING AND DRAINAGE:
- Remove rubbish, concrete, metal, glass, decayed vegetation, contaminated topsoil, and stones with largest dimension exceeding 50mm.
  - 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.
  - Maintain weed-free of all time.
  - Do not use machines within the root spread, drip line (or, within 3m of the trunk, whichever is greater) of existing trees to be retained (in same position or retained and relocated on site).
  - Remove from the site surplus excavated material not specified to be spread and levelled or stockpiled.
  - Keep all excavations free from water until formations are covered and below ground constructions are completed.
  - Inform the Landscape Architect immediately if it is considered that the excavations are below the water table so that the ground water level can be determined.
  - Do not use permanent drainage system for disposal of water from the excavations.
  - Benched excavation: Where finished gradient is 1:5 or steeper formations to be excavated in a benched fashion as shown on drawings.
  - Underground structures in landscape areas: Remove buildings, walls, roads, foundations, disused services, drains, manholes, and other obstructions in areas in which landscape works are to be carried out, to a minimum depth below finished levels of:  
  
Seeded areas:           450mm
  - Underground structures in landscape areas: Provide a hole not less than 600mm diameter for every 10 sqm of wall or slab allowed to remain in areas in which landscape works are to be carried out, to promote free drainage.
  - Subsoil levels shall be 200mm below the finished ground levels in all areas for seeding to allow for 200mm of topsoil after settlement.
  - Prior to subsoiling or topsoiling, and during dry conditions only, all disturbed ground shall be ripped using the back-actor of a 'Hymac' or similar to a depth of 450mm, or using a 3 or 5 tyne ripper to a depth of 600mm. The maximum distance between adjacent passes shall be 1200mm. The Contractor will ascertain the locations of all service runs and will protect those likely to be affected by ripping. No machinery shall pass over ripped areas prior to topsoiling and seeding. The Contractor will inform the Landscape Architect upon completion of ripping before subsoiling/topsoiling operations commence.
  - All subsoil will be free-draining and free from rubbish, builders material and rocks greater than 100mm in any direction.
  - The Contractor will install perforated land drains where illustrated on the Contract Drawings and will connect the land drains to the storm water system to the Engineer's detail.
- 118 SOIL CONDITIONS:
- Cultivate and sow into moist friable soil that is not waterlogged.

- Do not sow into frozen or snow covered soil without prior approval of the Landscape Architect. Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

120 CLIMATIC CONDITIONS:

- Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not seed during periods of frost, heavy rain, snow, hail or strong winds. Seed only during the following periods:
- Seeding – April-May or August-September
- Where the programme does not allow for seeding during these periods allow for over-seeding in April of the following year. Maintain areas with poor germination rate weed free during the winter prior to the over-seeding operations.

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 not practical to use machinery.

144 WATERING GENERALLY:

- Ensure the full depth of topsoil is thoroughly wetted, to field capacity.
- Use a fine rose where appropriate to avoid damaging or loosening plants.
- Do not over-water.
- Do not flood or cause any areas to be water logged.
- Do not cause mud or other materials to be splashed onto foliage.
- Water as necessary to ensure the establishment and continued thriving of all planting.
- Water when specified and when instructed by the Landscape Architect.

145 WATERING:

- Water as necessary to ensure the establishment and continued thriving of all seeding/turfing.

150 WATER RESTRICTIONS:

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

160 NOTICE: Make advance arrangements with Landscape Architect to give him the opportunity of being present during:

Setting out

Application of herbicide

Application of fertilizer

Preparation of seed bed

Seeding or turfing

Each site visit during maintenance period (where the specified notice is not given the site visit will be deemed not to have occurred).

170 SETTING OUT:

- Clearly mark boundaries of seeding/turfing areas and obtain approval before starting work.

190 SUITABILITY OF TOPSOIL:

- Before commencing work the Contractor shall confirm to the Landscape Architect that the topsoil, after the specified preparation, will be suitable for seeding/turfing.
- Seeding/turfing will be taken as further acceptance by the Contractor of the suitability of topsoil.

## PREPARATION

- 205 PREPARATION MATERIALS GENERALLY:
- Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
  - Submit to the Landscape Architect a supplier's certificate for the following materials and obtain approval before ordering or using the materials:
    - Grass seed
    - Fertiliser
    - Herbicides
  - The certificate must provide the following information:
    - Source of supply
    - Analysis of content
    - Confirmation of suitability for proposed purpose
    - Confirmation of absence of harmful substances.
- 210 WEED CONTROL FOR ALL AREAS TO BE SEEDED:  
Prevent weeds from seeding and perennial weeds from becoming established. Maintain all areas weed free at all times.
- 220 SAND FOR BEDDING LAYER AND ROOTZONE OF REINFORCED GRASS AREA:  
Does not form part of this specification.
- 225 LIME:  
Does not form part of this specification.
- 231 PEAT:
  - Do not use peat or products containing peat.
- 240 COMPOST:  
Does not form part of this specification.
- 245 PROPRIETARY COMPOST:  
Does not form part of this specification.
- 247 PROPRIETARY SOIL CONDITIONER/AMELIORANT:  
Does not form part of this specification.
- 248 BACK-FILLING ROOTZONE FOR REINFORCED GRASS AREAS:  
Does not form part of this specification.
- 250 CULTIVATION:
  - Break up any compacted topsoil to full depth.
  - Reduce top 100 mm of all topsoil to a tilth suitable for blade grading (10 mm down particles).
  - Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.
- 260 GRADING:
  - When topsoil is dry and workable, grade to smooth, flat, uni-directional planes, 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

200mm of topsoil. If the required levels cannot be achieved by movement of the existing soil, obtain instructions.

270 FERTILIZER:

Three to five days before seeding/turfing and before final cultivation apply both the following fertilizers evenly over all areas to be seeded, each at 70 g/m<sup>2</sup>, in transverse directions:

- Superphosphate with a minimum of 18% water soluble phosphoric acid.
- A sulfate of ammonia with a minimum of 20% nitrogen.

280 FINAL CULTIVATION:

- After grading and fertilizing carry out further cultivation to reduce top 25 mm 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 25mm in any dimension.
- 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.

290 PREPARATION FOR HYDRAULIC SEEDING:

Does not form part of this specification.

**SEEDING**

310 GRASS SEED MIX FOR GENERAL GRASS SEEDING AREAS:

- 45% 'Dwarf Ryegrass';
- 40% 'Slender Creeping Red Fescue';
- 10% 'Chewings Fescue';
- 5% 'Browntop Bent'.

Spread at 45g/sqm. Allow for additional 50% seeding rate on slopes and embankments greater than 1:10.

315 SEED MIX FOR WILDFLOWER AREAS:

- Precise species mix to be chosen by supplier based on on-site ground conditions and soil testing.
- Species mix to be compatible with All-Ireland Pollinator Plan
- Rate of sowing to be determined by supplier based on the selected species mix.
- All seed used to be of Irish provenance.
- Approval: Submit proposed seed mix to Landscape Architect for approval.
- Period of notice (minimum): 5 working days.

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 the Landscape Architect 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 April-May or August-September.
- Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions.
- Sowing by hand is recommended as smaller seed varieties may drop to the bottom of seed spreaders resulting in seed being sown in one place.

- Lightly harrow or rake.
- Roll and cross roll after seeding using a lightweight roller.
- Do not roll on heavy clay soils or when soil is wet.

340 PRE-EMERGENT HERBICIDE  
Does not form part of this specification.

350 TURF EDGING TO SEEDED AREAS:  
Does not form part of this specification.

355 SURFACE REINFORCEMENT MAT/MESH:  
Does not form part of this specification.

356 FORMATION LAYER FOR SURFACE REINFORCEMENT MAT/MESH :  
Does not form part of this specification.

357 SUB-BASE FOR SURFACE REINFORCEMENT MAT/MESH :  
Does not form part of this specification.

358 SAND/SOIL BEDDING LAYER FOR SURFACE REINFORCEMENT MAT/MESH:  
Does not form part of this specification.

359 LAYING SURFACE REINFORCEMENT MAT/MESH:  
Does not form part of this specification.

360 BACK-FILLING ROOTZONE FOR SURFACE REINFORCEMENT MAT/MESH:  
Does not form part of this specification.

361 REINFORCED GRASS SYSTEM:  
Does not form part of this specification.

365 PRESEDED MATTING:  
Does not form part of this specification.

370 HYDRAULIC SEEDING:  
Does not form part of this specification.

## **TURFING**

400 TURFING:  
Does not form part of this specification.

## **PROTECTING/WATERING/CUTTING**

510 PROTECTIVE FENCING:  
Does not form part of this specification.

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 WILDFLOWER AREAS  
Does not form part of this specification.



531 FIRST CUT OF LAWN AREAS

- Before each cut remove all litter and debris.
- When grass is 75mm 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 50mm high, using a cylinder mower.
- Collect and remove all arisings.
- Sweep all adjoining hard areas clear of cuttings and remove.

560 GRASS EDGING STRIP

Does not form part of this specification.

590 CLEANLINESS:

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

**MAINTENANCE**

600 MAINTENANCE:

- Comply with Specification for Landscape Maintenance prepared by Dermot Foley Landscape Architects.

## Q31 EXTERNAL PLANTING

To be read with Preliminaries/General conditions.

### GENERAL INFORMATION - REQUIREMENTS

- 100 USING HERBICIDES AND PESTICIDES:  
No herbicides, pesticides or any other chemicals shall be used without the written permission of the Employer.
- 110 TOPSOIL: (REFER ALSO TO APPENDIX 1)
- Topsoil for all areas shall be supplied, delivered, drawn and spread by the Main Contractor. Where additional topsoil is required it shall comply with the provisions of Appendix 1 and shall be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, to BS 3882.
  - By commencing works on site the Landscape Contractor shall be deemed to have accepted the topsoil and its suitability for compliance with this and any other specification issued for planting, seeding and maintenance.
  - The Landscape Contractor shall draw additional topsoil, where necessary, from existing stockpiles on site.
  - Where required to comply with this specification additional topsoil shall be imported to site. All imported topsoil shall be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, to BS 3882.
  - Imported topsoil shall conform with the specification included in Appendix 1 of this document.
  - Immediately before planting supply and spread topsoil to BS 3882 to various depths as outlined in this document and on drawings.
  - Topsoil shall be free from stones over 40mm in any direction. Stones over 20mm shall not exceed 10% by weight. The soil shall be free from subsoil, sods, roots of trees and shrubs and rubbish.
  - Topsoil shall be from the original surface layer of grassland or cultivated land to a maximum depth of 150mm. Visible presence of fibrous roots and plant remains will be required. Soils from woodland, heathland, bogs, sites subject to water logging or contaminated land will not be acceptable.
  - Topsoil shall be free from any parts of persistent weeds including dock, creeping thistle, stinging nettle, ragwort, bindweed, couch grass and Japanese knotweed.
  - If there is any evidence of *Fallopia japonica* (Japanese knotweed) or any invasive plant species as listed in the relevant legislation, during the works period or the defects liability period, the entire 'planted area' within which the weed is present shall be excavated and replaced at the Contractor's expense. 'Planted area' is defined as an area sharing the same continuous volume of topsoil, uninterrupted by hard standing of any kind.
  - Before topsoiling remove all stones, rubble and rubbish over 40mm in any direction from the surface of the subsoil formation. Excavate any areas polluted by oil or chemicals and make good.
  - All topsoil will be inspected by the Landscape Architect prior to spreading.
  - Spread topsoil by hand under dripline of existing trees.
  - Spread topsoil in dry conditions only. Do not move or cultivate topsoil in waterlogged conditions or where the moisture content of the soil is such that structural damage of the topsoil would occur.
  - The Contractor shall minimise damage to the topsoil by limiting machinery runs to the minimum requirement.
  - It is the Contractor's responsibility to assess the depth and quality of the topsoil and its fitness for planting the scheduled range of plant species for planting and seeding. By planting or seeding into the soil, the Contractor approves, accepts and takes responsibility for the topsoil.
  - Comply with Clauses 160 and 165 of this document.

- 111 TOPSOIL STRIPPING FROM OTHER SITES FOR USE ON THIS PROJECT:
- Provide catchment drains or ditches to collect excess run-off and prevent water entering from adjacent land. Remove scrub as well as top growth by cutting using flail or swipe mowers. Where turf is excessively thick, plough, disc harrow, and reduce vegetative content by weathering and cultivation.
  - Strip topsoil from all areas liable to disturbance of any kind, including building works, roads, underground services, all temporary access routes, compounds and storage areas. Strip the full designated working area, and any other areas liable to encroachment and traffic.
  - Do not run machinery over ground before stripping.
  - Strip the full depth of sod and topsoil to maximum 150mm depth. Avoid stripping into the subsoil layers.
  - Remove and dispose of off site excess topsoil stripped from the site.
  - Do not disturb any ground within the dripline of existing trees.
- 112 SITE CLEARANCE, EXCAVATION, RIPPING AND DRAINAGE
- Remove rubbish, concrete, metal, glass, decayed vegetation, contaminated topsoil, and stones with largest dimension exceeding 50mm.
  - 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.
  - Maintain weed-free at all times.
  - Do not use machines within the root spread, drip line (or, within 3m of the trunk, whichever is greater) of existing trees to be retained (in same position or retained and relocated on site).
  - Remove from the site surplus excavated material not specified to be spread and levelled or stockpiled.
  - Keep all excavations free from water until formations are covered and below ground constructions are completed.
  - Inform the Landscape Architect immediately if it is considered that the excavations are below the water table so that the ground water level can be determined.
  - Do not use permanent drainage system for disposal of water from the excavations.
  - Benched excavation: Where finished gradient is 1:5 or steeper formations to be excavated in a benched fashion as shown on drawings.
  - Underground structures in landscape areas: Remove buildings, walls, roads, foundations, disused services, drains, manholes, and other obstructions in areas in which landscape works are to be carried out, to a minimum depth below finished levels of:  
  
Shrub, groundcover and perennial planting: 750mm  
Within 2m of tree planting: 1500mm
  - Underground structures in landscape areas: Provide a hole not less than 600mm diameter for every 10 sqm of wall or slab allowed to remain in areas in which landscape works are to be carried out, to promote free drainage.
  - Subsoil levels shall be 500mm below the finished ground levels in all areas for shrub and groundcover and perennial planting to allow for 450mm of topsoil and 75mm mulch after settlement.
  - Subsoil levels in all areas for tree planting shall be minimum 1150mm below the finished ground levels to allow for 800mm of topsoil, 300 drainage layer and 75mm mulch after settlement.
  - Prior to subsoiling or topsoiling, and during dry conditions only, all disturbed ground shall be ripped using the back-actor of a 'Hymac' or similar to a depth of 450mm, or using a 3 or 5 tyne ripper to a depth of 600mm. The maximum distance between adjacent passes shall be 1200mm. The Contractor will ascertain the locations of all service runs and will protect those likely to be affected by ripping. No machinery shall pass over ripped areas prior to topsoiling and planting. The Contractor will inform the Landscape Architect upon completion of ripping before subsoiling/topsoiling operations commence.
  - All subsoil will be free-draining and free from rubbish, builders material and rocks greater than 100mm in any direction.
  - The Contractor will install perforated land drains where illustrated on the Contract Drawings and will connect the land drains to the storm water system to the Engineer's detail.

- 113      TRANSPLANTING EXISTING TREES:  
Does not form part of this specification.
- 114      PROTECTING EXISTING TREES:  
Does not form part of this specification. Refer to drawings, specifications and methodology by Consultant Arborist.
- 120      CLIMATIC CONDITIONS:  
Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost, heavy rain, snow, hail or strong winds. Plant only during the following periods:
- Deciduous trees and shrubs: Early November to late March (if root-balled up to mid-April)
  - Conifers and evergreens: September/October or April/May.
  - Bulbs: October/November/December.
  - 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.
- 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 not practical to use machinery. Comply with clause 114 of this document.
- 144      WATERING GENERALLY:  
- Ensure the full depth of topsoil is thoroughly wetted, to field capacity.  
- Use a fine rose where appropriate to avoid damaging or loosening plants.  
- Do not over-water.  
- Do not flood or cause any areas to be water logged.  
- Do not cause mud or other materials to be splashed onto foliage.  
- Water as necessary to ensure the establishment and continued thriving of all planting.  
- Water when specified and when instructed by the Landscape Architect.
- 145      DRIP FEED IRRIGATION TO ALL PLANTED AREAS:  
Does not form part of this specification.
- 147      WATERING TUBES: (REFER ALSO TO APPENDIX 4)  
Install irrigation system with 3m of 60mm diameter perforated polypropylene pipe looped around the rootball and connected to recycled HDPE tee piece, bring to surface level with vertical riser pipe and cap with recycled HDPE grid inlet of 80mm diameter.
- Install the tube around the full diameter of the root-ball, in a spiral fashion, as close to the surface of the root-ball as possible. Position the lower end of the tube at the same level as the underside of the rootball. Extend the upper end 100mm above the finished bark mulch/seeded level.
  - Securely fit a dust cap to the upper end of the tube.
  - Where the tree is planted in landscaped areas ensure that the watering tube and dust cap are integrated with the tree grille, if any, as specified.
- 148      SLOW RELEASE WATERING BAGS:  
Does not form part of this specification.
- 149      AUTOMATIC IRRIGATION SYSTEM  
Does not form part of this specification.

- 150      **WATER RESTRICTIONS:**  
If water supply is or is likely to be restricted by emergency legislation do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.
- 160      **NOTICE:**  
Provide three working days notice of the following operations, to give the Landscape Architect the opportunity of being present:
- Setting out  
Application of herbicide  
Application of fertiliser and soil conditioner  
Spreading of topsoil and/or subsoil  
Backfilling of topsoil over membrane over landscape deck  
Planting of shrubs, herbaceous perennials  
Planting of trees into previously dug pits  
Installation of semi-permeable membranes  
Watering  
Each site visit during maintenance period (where the specified notice is not given the site visit will be deemed not to have occurred)  
Replacement planting.
- 165      **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, except as specified elsewhere.  
Submit to the Landscape Architect a supplier's certificate for the following materials and obtain approval before ordering or using the materials:
- Topsoil  
Soil conditioner/Compost  
Fertiliser  
Mulch  
Grass seed
- The certificate(s) must provide the following information:
- Source of supply  
Analysis of content  
Confirmation of suitability for proposed purpose  
Confirmation of absence of harmful substances.
- 200      **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 specified or 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.  
Origin/Provenance: All native species must be of Irish origin unless otherwise specified by the Landscape Architect. Origin and Provenance have the meaning given in the National Plant Specification.  
Where trees are specified as clear-stemmed it is the Contractor's obligation to source trees that have been cultivated as such in the nursery. Trees which have been cultivated as feathered and pruned immediately before arrival on site to form clear-stemmed trees will not be accepted. New pruning cuts

will be deemed unacceptable and the Contractor will be obliged to source properly clear-stemmed trees elsewhere to the approval of the Landscape Architect.

- Grown by and supplied by reputable Irish nursery.

216 TREES/PLANTS: To the relevant part of BS 3936, name, forms, dimensions and other criteria as scheduled.

217 SEMI-MATURE TREES:

Do not arrange for the delivery on site of any semi-mature trees without the prior approval of the source of supply by the Landscape Architect. The Landscape Architect reserves the right to tag specific trees at specific nurseries for use on this project.

225 BULBS/CORMS/TUBERS:

Comply with Clause 445 of this document.

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. Roots to be established to such an extent that the root-ball remains totally intact upon removal of the container.
- 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.  
Containers and growing medium to be free from all forms of pest including adult vine weevil, their eggs and larvae.  
Climbing plants to be supplied in deep containers unless otherwise specified.

245 LABELLING AND INFORMATION:

- Provide each tree/plant or group of trees/plants of a single species or cultivar with supplier's labelling for delivery to site, showing:
  - The full botanical name
  - Total number
  - Number of bundles
  - Part bundles
  - Supplier's name
  - Employer's name and project reference
  - Plant specification, in accordance with the scheduled National Plant Specification categories
  - When requested, provide the Landscape Architect with additional stock information.

246 LABELLING AND INFORMATION:

- Label all trees/plants in accordance with the relevant part of BS 3936.

250 SUPPLY OF TREES/PLANTS:

- The Landscape Architect shall approve the supplier of all trees.

255 PREDELIVERY INSPECTION:

- The Landscape Architect shall inspect, approve and tag for use on this project all trees.

259 CONTRACT GROWING:

- The Contractor shall confirm availability of all plant material at the earliest possible time, immediately after appointment.

- If plant species are not available in the sizes and or quantities as specified, and no suitable substitution planting is available, the Contractor shall contract grow the plants for this project.

260 SUBSTITUTES:

- Where it is not possible to contract grow and if specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, the Landscape Contractor shall submit alternatives to the Landscape Architect stating price and how they differ from the specification. Such substitutions may not be acceptable and submission of further alternatives may be required.
- Obtain approval before making any substitution.

265 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, wind and draughts.
- Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging in accordance with CPSE 'Handling and establishing landscape plants'.

266 PLANT/TREE HANDLING AND STORAGE ON SITE:

- Protect all plant material from wind damage and desiccation.
- Do not store plants on site for more than 72 hours before planting.

270 PLANTING GENERALLY:

- Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
- Before planting remove containers, ties, wraps and other materials that might restrict the growth of roots.
- Plant upright or well balanced with best side to front.
- Plant to the nursery line.
- In naturally occurring wet or boggy conditions there may be a requirement to 'mound' plant. Where this is deemed to be the case obtain written instruction from the Landscape Architect before proceeding to plant.

275 ROOT DIRECTORS: (REFER ALSO TO APPENDIX 3)

One-piece modular root management unit manufactured from recycled MDPE with internal root deflecting ribs, 500mm deep with clear opening of 1200mm x 1200mm flaring to 1805mm x 1805mm at the base. Install in accordance with manufacturer's instructions.

280 TREATMENT OF TREE WOUNDS:

- Keep wounds as small as possible and cut cleanly back to sound wood using sharp, clean tools. Set cuts so that water will not collect on cut area.
- Do not apply fungicide or sealant unless instructed by the Landscape Architect.

285 PROTECT EXISTING (OR RECENTLY INSTALLED) GRASS/FIELD LAYER:

During planting operations protect existing grass/field layer by laying boards or tarpaulin. Do not place excavated material directly on to grass/field layer.  
The Contractor shall make good at his own expense any areas damaged during the works.

286 PROTECT EXISTING (OR RECENTLY INSTALLED) HARD LANDSCAPE SURFACES:

Before commencement, the Landscape Contractor shall agree, routes for vehicular movement on site with the Main Contractor and Landscape Architect. The Landscape Contractor shall use only the agreed routes.

During planting operations protect existing hard landscape surfaces by laying 8'x4'x1" thick boards and/or tarpaulin, as instructed by the Landscape Architect. Do not place excavated material directly on to hard landscape surfaces.

The Contractor shall make good at his own expense any areas damaged during the works.

- 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**

- 300 WEED CONTROL AND PLANTING FOR TREES/WOODLAND TO BE RETAINED:  
Does not form part of this specification.
- 305 WEED CONTROL FOR ALL AREAS TO BE PLANTED:  
Prevent weeds from seeding and perennial weeds from becoming established. Maintain all areas weed free at all times.
- 335 GENERAL FERTILISER:  
Apply the following in addition to any fertilisers or ameliorants specified elsewhere in this document:
- Granular controlled release fertiliser with 24 month longevity, supplied in sealed bags with the manufacturer's name, net weight and chemical analysis of content clearly marked on the bag.
  - Apply evenly over all areas to be planted at rates in accordance with manufacturer's instructions immediately before cultivation and incorporate to 300mm depth.
- 340 PEAT:
- Do not use peat.
- 355 SOIL CONDITIONER/AMELIORANT FOR ALL PLANTED AREAS: (REFER ALSO TO APPENDIX 2)
- Supply and spread bulk soil conditioner, at 35% of overall volume of entire cultivated area.
  - Material to conform with the specification in Appendix 2 of this document.
  - Manufacturer: -
  - Product Reference: -
  - Delivered in bulk dry to site.
  - Provide certificate from supplier.
  - Comply with clause 165 of this document.
  - Comply with clause 340 of this document.
- 375 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.
  - Leave surface regular and even and within 50 mm of levels specified on drawings.
  - 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.
  - Do not dig or cultivate within the root spread or drip line of trees and shrubs to be retained unless otherwise instructed by the Landscape Architect. Comply with clause 112 of this document.
- 385 GEOTEXTILE FABRIC TO BASE OF TREE PITS OVER DRAINAGE LAYER:
- Install separation and filtration woven geotextile with NorGeoSpec accreditation, for use between drainage layers and topsoil.
  - Water soil thoroughly before laying. Lay before planting, taking care to ensure close contact with the soil surface. Lap joints to min. 200mm, as recommended by manufacturer with no gaps.



- 386 MULCH MATS:  
Does not form part of this specification.

#### **PLANTING SHRUBS/HERBACEOUS PLANTS/BULBS**

- 405 GROUNDCOVER/PERENNIAL PLANTING PITS:
- Excavate not more than 2 days before planting and retain topsoil for re-use where specified. Size(s): 150 mm wider and deeper than the root spread of the plants to be planted.
  - Break up bottoms of pits to a depth of 150 mm.
  - Backfilling material: as removed from planting pits prior to planting or mixed elsewhere on site and imported to the planting pit, specified soil, compost and fertiliser as per clause 475 of this document.
- 415 CONIFERS/EVERGREENS:  
Does not form part of this specification.
- 425 HERBACEOUS PERENNIAL PLANTS:
- Where there is no detailed planting plan, evenly space the specified plants over the allocated area in a random mixed fashion, avoiding straight lines unless indicated otherwise on drawings or schedules.
- 445 BULBS/CORMS/TUBERS:
- Bulbs free from dirt, disease, fully formed and supplied for the current seasons planting
  - Plant at 20 or 10 bulbs per sqm, as scheduled, in random fashion
  - Broadcast the bulbs within areas designated on plan and plant where the bulbs land.
  - Plant at a depth twice that of the depth of the bulb.
  - Plant upright in bore hole excavated with trowel or other hand tools. Backfill and firm topsoil.
  - Where planting in turf, replace the turf carefully over each bulb hole.
  - Where bulbs are at risk from rats, squirrels or other pests inform the Landscape Architect and obtain instruction before planting.
  - Protect Crocus bulbs by installing a 7mm nylon mesh above the bulbs and 25-50mm below the surface of the topsoil, sufficient to remain intact for 18 months or the duration of the Defects Liability Period.
  - Comply with BS 3936 Part 9.
  - Comply with Clauses 165 & 200 of this document.
- 475 BACKFILLING MATERIAL:
- The entire planting area (except for areas of bulb planting only, which shall have been previously cultivated to 200mm depth) shall have previously been cultivated in accordance with Clauses 335 and 355 of this document to a depth of 450mm.
  - Where existing topsoil does not conform to this specification import additional topsoil as per clause 110 of this document.
  - Backfilling for each pit shall consist of material excavated from the pit and additional imported topsoil as required, together with:  
35% by volume loosened organic matter as per clause 355 of this document,  
Fertiliser as per clause 335 of this document.
- 480 AFTER PLANTING:
- Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle cambers and no hollows.
  - Water plants thoroughly with minimum 5 litres per groundcover plant immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants.

- 485        **MULCHING PLANTING AREAS: (REFER ALSO TO APPENDIX 4)**
- Material to be bark mulch free of pests, disease, fungus and weeds.
  - Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds to a minimum depth of 75mm.
  - Ensure that the finished mulch level does not exceed surrounding hard landscape or seeded finished levels and that mulch material does not spill over onto surrounding surfaces.
  - Allow for settlement and top-up at the end of the defects liability period to finished levels as specified.
  - Do not cover plants with mulch. Carefully adjust the finished mulch level around the base of the plant to ensure that no material is lying above the nursery line. Spread mulch with 20mm clearance from base of tree or plants.
- 486        **FINISHED LEVELS OF PLANTING AREAS:**
- Finished mulch levels and grading of planted areas should be no higher than adjacent hard surface and should be uniform. Unless specifically indicated on drawings, barrelled, mounded or otherwise unspecified grading shall not be accepted and the Contractor shall be obliged, at his own expense, to re-excavate mulch, topsoil and subsoil formations to achieve correct depths and levels.

**PROTECTING/MAINTAINING/MAKING GOOD DEFECTS**

- 710        **MAINTENANCE:**
- Comply with Specification for Landscape Maintenance prepared by Dermot Foley Landscape Architects.

## **Q35 LANDSCAPE MAINTENANCE**

To be read with Preliminaries/General conditions.

### **GENERAL INFORMATION AND REQUIREMENTS**

- 100 USING HERBICIDES AND PESTICIDES:  
No herbicides, pesticides or any other chemicals shall be used without the written permission of the Employer.
- 110 GENERAL REQUIREMENTS & NOTICE TO LANDSCAPE ARCHITECT:  
The contractor shall establish grass seeded areas in private rear gardens to the approval of the landscape architect but thereafter this specification does not apply to private rear gardens.
- The maintenance and defects liability period shall be 18 months from practical completion of all planting and seeding and 36 months from practical completion of all planting and seeding for semi-mature tree planting.
  - Make visits at monthly intervals, or more frequently during the growing season and as necessary to fulfill the requirements of this specification. Make minimum 26 visits per calendar year.
  - Provide 3 days notice of the following operations, to give the Landscape Architect the opportunity of being present:
    - Application of fertilizer
    - Watering
    - Each site maintenance visit.
  - Where the Contractor does not provide the specified advance notice to the Landscape Architect or does not submit written maintenance work sheets, describing the work carried out, within three working days of any site visit the site visit will be deemed not to have occurred.
- 111 MAINTENANCE INSTRUCTIONS:  
Before the end of the first 12 months of the period stated in Clause 110 submit, to the Landscape Architect for his approval, printed instructions recommending and describing in detail procedures to be established by the Employer for successful maintenance of the planting work for one full calendar year.
- 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 landscape, structures or buildings.
- 131 REPLACEMENT PLANTING:
- Excepting theft or malicious damage, any trees/shrubs/plants that have failed to thrive will be regarded as defects due to materials or workmanship not in accordance with the Contract. Unless otherwise instructed they must be replaced, at the Contractor's cost, by approved equal materials.
  - Replacements must take into account the increased size due to growth since the completion of planting and must match the size of adjacent, or nearby, plants of the same species, or should match the original specification, whichever is the greater.
  - The Landscape Architect shall designate the source of any replacement planting or shall approve the source prior to the delivery on site of the replacement planting.
  - Replacement planting will be subject to a new defects and liability period of 18 months from the time the replacement planting has been completed.
- 140 CONTROL OF MAMMALIAN PESTS:  
Employ only approved firms and methods.
- 150 WATERING GENERALLY:
- At the start of the works agree water supply points with Employer. If no watering supply points are

- available for use water using a tanker previously filled with potable mains water.
- Obtain Landscape Architect'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.
- Watering should be carried out at all times to ensure that the planting does not deteriorate either visually or in terms of its overall health. Visual deterioration will be unacceptable and the Contractor will be obliged to replace the affected planting immediately.
- Persistence of weeds in planted areas will be considered a contributory cause of failure due to drought. Prolonged dry weather will not exonerate the Landscape Contractor if his specified aftercare operations have not been carried out as programmed.

155 WATERING:

Water as necessary to ensure the continued thriving of all planting.

156 WATERING:

Water as specified in this document and when instructed by the Landscape Architect.

157 WATERING TREES:

- Water only by placing hose in watering tube or slow release watering bag.
- Water fortnightly during establishment period (18 months after completion of all planting), thereafter as necessary and when instructed by Landscape Architect.
- From 1<sup>st</sup> March to 31<sup>st</sup> August, water weekly during prolonged periods of dry weather. A prolonged period of dry weather is defined as two weeks (14 days or more) during which no more than 10mm of rain has fallen.
- Apply 20 litres of water (or sufficient to reach field capacity, but not more) per tree per watering session.
- Comply with Clause 150 of this document.
- After removing the hose replace cap on watering pipe and ensure watering pipe and cap are clean and free from leaf litter or other material that might block the watering pipe.

170 DISPOSAL OF ARISING GENERALLY:

Unless specified otherwise, dispose of arisings from all specified operations by removing from site.

180 CHIPPING OR SHREDDING ON SITE:

Of materials arising from the work will not be permitted.

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 from full extent of development.
- Collect litter at minimum 2 weekly intervals and as instructed by the Landscape Architect.
- Maintain planted areas free from litter at all times.

191 VANDALISM:

- The Landscape Contractor shall not be responsible for vandalised or maliciously damaged material, but shall be available to replace the material as agreed with the Employer.
- Where material is vandalised the Landscape Contractor shall remove the material as per Clause 192 of this document.
- It is the Employer's policy to replace vandalised material as soon as possible.
- Replacement planting shall be agreed with the Employer in advance of the works being carried out.

192 COLLECTION OF BROKEN, VANDALISED OR DAMAGED MATERIAL:

- Collect and remove all damaged and vandalised plant material immediately.

- 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.
- 198      PROTECT EXISTING HARD LANDSCAPE FINISH:  
The Landscape Contractor shall protect hard landscape finishes from debris and damage during maintenance operations.
- 199      BLOWER MACHINES:  
Do not use blower or vacuum machines for leaf collection or any other purpose in or at the edges of planted areas.

### **GRASSED AREAS**

- 205      OVER-SEEDING  
- Where the Main Contract Programme does not allow for seeding in September/October or April the Landscape Contractor shall allow for over-seeding operations at a later agreed date and shall carry out this work as part of the general maintenance regime.
- 210      MAINTENANCE OF LAWN AND REINFORCED GRASSED AREAS:  
Provide an even stand of vegetation of uniform height and colour comprising grass species only (maximum 2% dicotyledonous plants).
- 215      ESTABLISHMENT OF GRASSED AREAS - WATERING:  
Comply with all relevant clauses of this document.
- 220      GRASS CUTTING GENERALLY  
- Cut using a cylinder mower.  
- Remove litter, rubbish and debris from grassed areas before mowing.  
Cut to a neat even finish, without rutting or compaction of the surface, especially when ground conditions are soft.  
Leave edges neat, trimmed and well defined after every mowing session.  
Neatly trim all grass edges round the base of lighting columns, manholes, and other objects.  
Sweep adjoining hard areas clear of arisings and remove.  
Do not cut during periods of drought, or when ground conditions or grass is wet, without the prior agreement of the Employer or the Landscape Architect.
- 225      PROTECTION OF TREE 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.  
- Any tree or plant damaged in any way by contact with mowing/cutting machinery shall be replaced, immediately, at the Contractor's cost, in accordance with Clause 131 of this document.
- 230      GRASS CUTTING MACHINES FOR LAWN AND REINFORCED GRASSED AREAS:  
Use cylinder mowers only.
- 235      BULBS AND CORMS:  
- Where the grass areas include early flowering bulbs in lawn areas.  
- Do not cut areas with bulb planting from January to March.  
- Do not cut areas with bulb planting until the foliage has fully died away.
- 240      MOWING STRIPS:

Does not form part of this specification.

251 LEAF REMOVAL:

- At each visit remove all leaves and other debris from grass areas

260 MOWING GRASSED AREAS:

- Maintain vegetation length of between 35 –50mm from April – August inclusive.
  - Maintain vegetation length of between 50 –70mm at all other times.
  - Mow weekly from April – August inclusive.
  - Mow as required to satisfy this specification at all other times.
- Carry out minimum 25 cuts annually and additionally as required to satisfy this specification.

265 MOWING GENERAL AREAS:

Does not form part of this specification.

273 ESTABLISHMENT OF GRASSED AREAS WITH ANNUAL WILD FLOWERS:

Does not form part of this specification.

275 CUTTING SUMMER FLOWERING WILD FLOWER MEADOWS:

Does not form part of this specification.

280 CUTTING SPRING FLOWERING WILD FLOWER MEADOWS:

Does not form part of this specification.

285 TOP DRESSING:

Does not form part of this specification.

290 ROLLING:

Does not form part of this specification.

295 SPIKING:

Does not form part of this specification.

300 SCARIFYING LAWNS:

- In April, scarify with self propelled equipment to a depth of 25 mm to relieve thatch conditions and remove dead grass.
- Do not scarify lawns less than 6 months old.
- Do not scarify areas with bulb planting.

305 HARROWING:

Does not form part of this specification.

306 HOLLOW TINING:

- In April and again in September, hollow tine with self propelled equipment to a depth of 125 mm.
- Do not scarify areas with bulb planting.

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.

320 LEVELLING HOLLOW AND BUMPS IN TURF:

Level using the methods in BS 7370:Part 3, clauses 12.4 and 12.5.

325 RELIEVING SURFACE COMPACTION IN TURF:

Does not form part of this specification.

- 329 POST EMERGENCE HERBICIDE FOR LAWN:  
Does not form part of this specification.
- 330 SELECTIVE HERBICIDE FOR LAWN:  
Does not form part of this specification.
- 340 SPOT WEEDKILLING FOR LAWN:  
Does not form part of this specification.
- 350 FERTILIZER FOR LAWN:  
- Throughout the growing season apply NPK 14:0:6 according to manufacturer's recommendations.  
- Spread in two equal passes in transverse directions, avoiding banding.  
- Do not apply to seeded areas less than 6 months old.  
- Repeat the application throughout the growing season to prevent discolouration of the lawn caused by nutritional problems.
- 381 REINSTATEMENT OF LAWNS:  
- Make good worn or damaged areas by re-turfing to BS 7370:Part 3, Clause 12.2, or re-seeding to BS 7370: Part 3, Clause 12.6, using turf or seed to match the existing in appearance and quality.  
- Provide protection and watering to promote successful germination and/or establishment.

#### **FLOWER BEDS/SEASONAL BEDDINGS**

Does not form part of this specification.

#### **PERENNIALS/GROUNDCOVER/SHRUBS/TREES/HEDGES**

- 500 ESTABLISHMENT OF NEW PLANTING:  
During the initial establishment of newly planted trees and shrubs, carry out maintenance of the planted areas as follows:  
- Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1m or the surface of the original planting pit. Keep planting beds clear of all weeds, by hand weeding. Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows, taking care not to reduce depth or effect of mulch.  
- Carry out weeding at minimum fortnightly intervals from 1<sup>st</sup> April to 31<sup>st</sup> October and monthly intervals from 1<sup>st</sup> November to 31<sup>st</sup> March. Leave entire site completely free from weeds after each visit.  
- Spray crown of trees when in leaf during warm weather. Carry out in the evening.
- 501 ESTABLISHMENT OF NEW PLANTING – PROTECTIVE FENCING TO GROUNDCOVER:  
Maintain chestnut pale protective fencing in good condition at all times. Ensure that posts are vertical and ties are complete. Replace damaged chestnut pale immediately.
- 502 ESTABLISHMENT OF NEW PLANTING - FERTILIZER:  
As per Clause 695 of this document.
- 540 PRUNING GENERALLY:  
- Do not prune any plants without the prior approval of the Landscape Architect.  
- 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 Landscape Architect. 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 Landscape Architect of any disease or fungus. Do not apply growth retardants, fungicide or sealant unless instructed by the Landscape Architect.
- 545 PRUNING OF EXCESSIVE OVERHANG: Remove any growth encroaching onto grassed areas, paths, roads, signs, sightlines and light fittings.
- 550 PRUNING OF EXCESSIVE HEIGHT:  
Does not form part of this specification.
- 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.
- 576 PRUNING OF PERENNIAL & HERBACEOUS GROUNDCOVER SPECIES:
  - Do not prune any plants without the prior approval of the Landscape Architect.
  - Cut back all dead or dying material to 150mm above ground, or as instructed by the landscape architect, in November.
  - Remove Hedera helix (ivy) from trees and shrubs. Do not damage or cut tree and shrub bark.
  - Use only a sharp, well-maintained secateurs.
- 580 PRUNING FLOWERING SPECIES:  
Does not form part of this specification.
- 590 PRUNING PARTICULAR SPECIES:  
Does not form part of this specification.
- 600 TRIMMING RAPIDLY ESTABLISHING HEDGES:  
Does not form part of this specification.
- 610 TRIMMING TAPERING ESTABLISHED HEDGES:  
Does not form part of this specification.
- 615 TRIMMING HEDGES:  
Maintain all hedges to a uniform and neat alignment and height.  
Trim all beech hedges once annually in the second week of August to allow new growth to form before autumn.  
Trim all other species twice annually in May and September.
- 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.
- 630 REMOVE AND REPLACE DEAD PLANTS:
  - Inform the Landscape Architect as soon as the dead plant material is noticed.
  - Remove and replace as soon as possible and in any case within one week.
  - Comply with Clauses 130 and 131 of this document.
- 635 REINSTATEMENT OF GROUNDCOVER/PERENNIAL/HERBACEOUS AREAS:
  - Remove dead and damaged plants by hand digging.
  - 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 to the original specification or to match the size of adjacent or



- nearby plants of the same species, whichever is the greater.
- Apply the following in addition to any fertilisers or ameliorants specified elsewhere in this document: granular controlled release fertiliser with 24 month longevity, supplied in sealed bags with the manufacturer's name, net weight and chemical analysis of content clearly marked on the bag. Apply evenly over all areas to be planted at 120 g/sq m immediately before cultivation.
- Agree details of replacement plants with Landscape Architect before ordering.

640 THINNING:

Does not form part of this specification.

645 WEED CONTROL GENERALLY:

- Ensure a completely weed free condition throughout the full extent of all planting at all times.
- Ensure that the methods used cause no damage to adjacent plants, trees or grass.

650 HAND WEEDING IN AREAS OTHER THAN WOODLAND & COPSE PLANTING:

- Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to trees, plants, mulched surfaces and bulbs and leaving the area in a neat, raked, clean condition.

655 WEED CUTTING BY HAND OR MACHINE:

Does not form part of this specification.

657 HERBICIDE TO KILL REGROWTH:

Does not form part of this specification.

660 TREE AND PLANT STEMS:

- Do not allow nylon filament rotary cutters or other mechanical tools closer than 100 mm to the stem of any tree or plant. Complete operations close to stems using hand tools.
- Any tree or plant damaged in any way by contact with herbicide or machinery shall be replaced, immediately, at the Contractor's expense, in accordance with Clause 131 of this document.

665 WEED CONTROL WITH WINTER HERBICIDE:

Does not form part of this specification.

670 WEED CONTROL WITH SUMMER HERBICIDE:

Does not form part of this specification.

675 DIGGING OVER:

Does not form part of this specification.

680 SOIL AERATION:

- Prick up trodden or otherwise compacted soil surfaces by hand to aerate the soil of root areas. Do not damage plants and their roots.

685 SOIL LEVEL ADJUSTMENT:

- Maintain the level of the soil/mulch at the edges of beds to remain at the same level as the adjacent grass or hard surface.
- Remove excess material from site.

690 MAINTENANCE OF MULCH: (REFER ALSO TO APPENDIX 3)

- Top up and maintain the depth of mulch at all times at 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.

693 MAINTENANCE OF MULCH MATTING/SHEET MULCHES:

Does not form part of this specification.

- 695 FERTILISING ESTABLISHED TREES AND SHRUBS:  
In March/April, evenly spread NPK 10:11:18 controlled release fertiliser to all planted areas, carefully incorporating below mulch materials at rates in accordance with manufacturer.
- 700 SNOW REMOVAL FROM SHRUBS/TREES: Remove snow as recommended by BS 7370:Part 4, clause 3.5.15.
- 700 DE-ICING PRODUCTS:
- Do not use rock salt or other corrosive products.
  - Use only non-toxic biodegradable natural marine grade salt liquid de-icer with corrosion inhibitors.
  - Do not spread or allow products to wash into planted areas.
  - Spread in accordance with manufacturer's instructions.
- 705 DEAD LEAF REMOVAL:
- Remove fallen leaves by hand from all areas.
  - Do not use leaf blowing or vacuum machines in or at the edges of planted areas.
  - Remove all arisings from site.

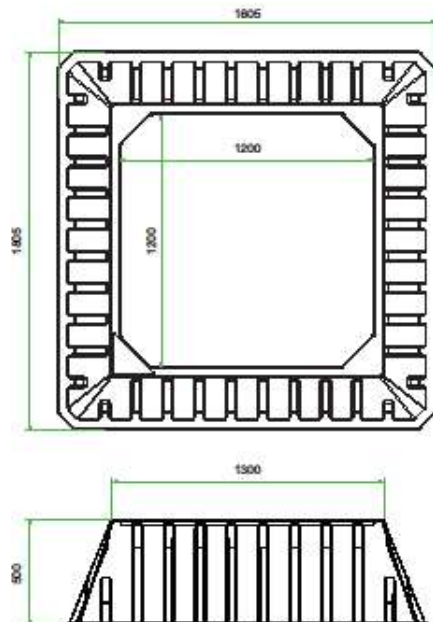
**APPENDIX 1: DATA SHEET FOR TOPSOIL**

<b>Range of use</b>	The soil is suitable for landscape projects, such as tree/shrub planting and roll-out turf, vegetable planting and seed establishment
<b>Materials</b>	Topsoil blended with quality peat-free compost. Compost should meet the Irish Standard 441:2011.
<b>Size distribution</b>	100% passing through 25mm screen  50% passing through 10mm screen
<b>Soil texture</b>	Clay 5-35 % m/m  Silt 0-65 % m/m  Sand 30-85 % m/m
<b>Carbon : Nitrogen Ratio (Dumas)</b>	<20:1
<b>Electric Conductivity (Calcium Sulphate)</b>	< 3000 uS/cm
<b>Available plant nutrient content (BS 3882:2015)</b>	Nitrogen % m/m >0.15 Extractable Phosphorous 16-140 mg/l Extractable Potassium 121-1500 mg/l Extractable Magnesium 51-600 mg/l Extractable Calcium 1500-4000 mg/L
<b>Organic content (Loss on ignition)</b>	>10 % w/w
<b>pH value</b>	5.5-8.5
<b>Soil index (DEFRA)</b>	>2+
<b>Bulk Density</b>	800-1000 g/L

**APPENDIX 2: DATA SHEET FOR COMPOST/SOIL CONDITIONER**

<b>Range of use</b>	Can be used for a wide variety of domestic and commercial purposes.	
<b>Materials</b>	Peat-free compost – made from recycled plant material	
<b>Quality</b>	Meets Irish Standard IS 441:2011	
<b>Size</b>	100% passing through 15mm screen	
<b>distribution</b>	50% passing through 5mm screen	
<b>Stability (prEn 16087-1)</b>	<13 mmolO <sub>2</sub> /kg organic solid /h	
<b>Electric Conductivity</b>	600-1200 uS/cm	
<b>Available plant nutrient content</b>	Total Nitrogen 1-2.5% w/w Total Phosphorous 2000-4500mg/Kg Total Potassium 6000-16 000 mg/Kg Magnesium 4000-6000 mg/Kg Calcium 6-8% w/w Sulphur 2000-4000 mg/Kg	I.S EN 13654-1 ( Kjeldahl) I.S EN 13654-2 (Dumas) I.S EN 13650 I.S EN 13650
<b>Organic matter (IS EN 13039)</b>	>20 % dry weight	
<b>pH value (I.S EN 13037)</b>	6.5-8.5	
<b>Bulk density</b>	450-550 g/L	

APPENDIX 3: DATA SHEET ROOT DIRECTOR:



**Product data sheet**  
**Root Director**

<b>TYPE</b>	Tapered and ribbed to suit rootball up to 1150mm diameter
<b>CODE</b>	RD1400A
<b>MATERIAL</b>	Recycled MDPE
<b>MATERIAL CHARACTERISTICS</b>	Density: 0.935
<b>FINISH</b>	Natural
<b>COLOUR</b>	Black
<b>WEIGHT</b>	16.0kg



**APPENDIX 4: DATA SHEET FOR BARK MULCH**

<b>Origin</b>	100% Conifer Bark
<b>Particle Size</b>	100% Less than 35mm.Maximum 10%<15mm
<b>p.H</b>	4.8-5.8
<b>Wood Content</b>	<5%
<b>Colour</b>	Earthy Brown
<b>Bulk Density</b>	330-440 Kg per cubic metre
<b>Safety</b>	Not Treated with additives

**APPENDIX 5: ILLUSTRATION OF WATERING TUBES TO TREES**

