

New Cottages, Rose Villa, Roundway, Devizes
The Crown Estate

Soft Landscape Specification

Document Reference: 2693201-SBC-00-XX-SP-L-901-PL01

4th June 2026

PLANNING



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Revision:	Description:	Issued By:	Approved By:	Date:
PL01	First Issue	Steve Mann	Simon Brewster	4 th June 2026

A

ADDITIONAL PRELIMINARIES

(to supplement main building specification)

See main specification for all preliminaries.

A10 PROJECT PARTICULARS

A10/141 LANDSCAPE ARCHITECTS (hereinafter referred to as LA):
Soltys Brewster Consulting
Telephone: 033 00 13 00 12

A11 TENDER AND PROJECT DOCUMENTS

A11/120 THE CONTRACT PERIOD

- All landscape ground preparation should be completed during May to October under dry weather conditions.
- All planting works are to be completed on site between November and March, unless otherwise agreed. Any planting works outside this planting season needs to be agreed and container grown stock supplied in the place of bare root and root balled stock, as relevant.

Additional restriction may apply, subject to the final agreed planning conditions, which are likely to limit timescales for particular works as environmental protection measures. These had not been finalised at the time of writing.

A11/125 THE LANDSCAPE DRAWINGS are:

Drawing Name
Hard and Soft Landscape Plan

Drawing Reference
2693201-SBC-00-XX-DR-L-201

These drawings are subject to revision.

A31 SUBSTITUTION APPROVAL

A31/180 CROSS REFERENCE TO THE SPECIFICATION

- Where a numerical cross-reference to a specification section or clause is given on drawings or in any other document the Contractor must verify its accuracy by checking the remainder of the annotation or item description against the terminology used in the referred to section or clause.
- Where a numerical cross-reference is not given the relevant section(s) and clause(s) of the specification will apply, cross-reference thereto being by means of related terminology.
- Where a cross-reference for a particular type of work, feature, material, or product given, relevant clause(s) elsewhere in the referred to specification section dealing with general matters, ancillary products and workmanship also apply.
- The Contractor must, before proceeding, obtain clarification or instructions in relation to any discrepancy or ambiguity which he may discover.

A31/200 EQUIVILANT 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 CA 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 CA. No alternative to plant species are allowed without the prior agreement of the Landscape Architect.

A31/210 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 CA 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.

A31/225A REFERENCES TO BSI DOCUMENTS

- References to BSI documents are to the versions and amendments listed in the BSI Standards Catalogue current at the date of tender. Where BSI reference conflicts with other information given, notify the CA for clarification before confirmation of orders or other action which has cost +/- implications.

A31/270 SIZES

Unless otherwise stated:

- Products are specified by their co-ordinating sizes.
- Cross section dimensions of timber shown on drawings are as built.

TERMS USED IN REFURBISHMENT / ALTERATION

A31/311 REMOVE

- Remove means disconnect, dismantle as necessary and remove the stated element, work or component and all associated accessories, fastenings, supports, linings, and bedding materials, and dispose of unwanted materials. It does not include removing associated pipework, wiring, ductwork, or other services.

A31/341 REPAR

- Repair means carry out local remedial work to existing components, features and finishes, resecure or refix as necessary and leave in a sound and neat condition. It does not include:
 - Replacement of components or parts of components.
 - Redecoration.

A31/351 MAKE GOOD

- Make Good means carry out local remedial work to components, features and finishes which have been disturbed by other, previous works and leave in a sound and neat condition. It does not include:
 - Replacement of components or parts of components.
 - Redecoration.
- The meaning of the term shall not be limited by this definition where used in connection with the defect's liability provisions of the Contract.

A33

COMPLIANCE AND QUALITY STANDARDS

A33/150

PROTECTION OF PRODUCTS

- Prevent over-stressing, distortion, and any other type of physical damage.
- Keep clean and free from contamination. Prevent staining, chipping, scratching or other disfigurement, particularly of products exposed to view in the finished work.
- Keep dry and in a suitably low humidity atmosphere to prevent premature setting, moisture movement and similar defects. Where appropriate store off the ground and allow free air movement around and 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.
- Ensure that sheds and covers are of ample size, in good weatherproof condition and well secured.
- Keep different types and grades of products separately and adequately identified.
- So far as possible 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.

A33/170

GENERAL QUALITY OF WORKMANSHIP

- Operatives must be appropriately skilled and experienced for the type and quality of work.
- 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.
- Where not specified otherwise, select fixing and jointing methods and types, sizes and spacings of fastenings in compliance with relevant British Standards.
- Provide suitable, tight packings at screwed and bolted fixing points to take up tolerances and prevent distortion. Do not overtighten fixings.
- Adjust location and fixing of components and products so that joints which are to be finished with mortar or sealant or otherwise left open to view are even and regular.
- Ensure that all moving parts operate properly and freely. Do not cut, grind, or plane prefinished components and products to remedy binding or poor fit without approval.

A34

SECURITY / SAFETY / PROTECTION

To be read with Preliminaries / General conditions.

GENERALY

A34/114

PROTECTION AND MAINTENANCE OF EXISTING DRAINS AND CULVERTS

- The Landscape Contractor shall notify the CA in writing 14 days in advance of his intention to start any part of the Works affecting existing drains and culverts.
- The Landscape Contractor shall take all practicable measures, which shall be to the prior approval of the CA, to prevent the deposition of silt or other material in any existing drain or culvert arising from the site operations.
- The Landscape Contractor shall ensure that all existing drains and culverts in the vicinity of the Works or affected by the Works are adequately protected and maintained in effective working condition at all times.

PROTECT AGAINST THE FOLLOWING:

A34/233

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 CA immediately.
- Fuel oil stored on site is to be contained in a bunded area or a double skin tank to conform to relevant requirements and to the approval of the Principal Contractor.

A34/235

USE OF PESTICIDES

- Use only where specified or approved, and then only suitable products as listed in the UK Pesticide Guide.
- 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.

PROTECT THE FOLLOWING

A34/435A

TOPSOIL / SUBSOIL

- Protect 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. Agree extent of reinstatement with the CA and bear any costs arising.
- Provide a plan of existing soiled areas (proposed for retention) which need to be disturbed as part of the works and agree a strategy for protection of each area in question before commencement on site.

A34/440

TREES / HEDGES / SHRUBS / GRASSED AREAS / DITCH

- Prior to commencement of works erect tree protection fencing and keep in place during all works to protect all retained trees. Refer to tree protection measures and planning conditions.

- Replace to approval or treat as instructed any species or areas damaged or removed without approval.
- Mature trees and shrubs which, due to the Landscape Contractor's negligence, are uprooted, destroyed, or in the opinion of the CA and Landscape Architect, damaged beyond reasonable chance of survival in their original shape, must be replaced with those of a similar type and age at the Landscape Contractor's expense.

A34/480A PROTECTION OF NESTING BIRDS

- The Landscape Contractor is to be aware that all nesting birds have statutory protection. All persons on site are to be informed that the location of any nesting birds is to be noted, and work adjacent to these sites programmed as necessary to insure no disturbance. The Landscape Contractor is to include in his method statement and programme items for work adjacent to retained hedgerows and mass landscape to allow appropriate evaluation and protection of nesting birds.

A34/490A PROTECTION OF BATS

- All mature trees to be removed/lopped or pruned shall be inspected for the presence of bats by an experienced bat worker or surveyor on the day of felling. If evidence of bats is found during inspection, all work on the relevant tree shall cease immediately and advice shall be sought from Natural Resources Wales (NRW).

A34/500 TIMBER

- Wherever practicable, wood certified as being supplied from a sustainable source, e.g., Forest Stewardship Council (FSC) Certified should be used.

D20 EXCAVATING AND FILLING

To be read with Preliminaries / General conditions.

GENERAL / THE SITE

D20/145 VARIATIONS IN GROUND WATER LEVEL

- Give notice: If levels encountered are significantly different from levels in the site investigation report or previously measured.

CLEARANCE / EXCAVATING

D20/160 CLIMATIC CONDITIONS

- Work shall only be carried out when weather and ground conditions are suitable for a particular operation. The Contractor will suspend work promptly in deteriorating conditions.
- The Contractor shall suspend work promptly whenever conditions are unsuitable for full attainment of the requirements of the specification. Work may not resume until authorised by the CA. If, in the opinion of the CA, conditions for handling soils are unsuitable because of weather and/or ground conditions, and if the Contractor has not already stopped soil handling, the CA may instruct the Contractor to suspend work. Any suspension of work instructed under this Clause shall be at the Contractor's expense i.e., no payment will be made for downtime.
- Expediency will not be considered as sufficient grounds for failure to meet the full requirements of the specification. The CA will reject work carried out under inappropriate conditions. Such work will be repeated entirely at the Contractor's expense.
- Soils shall be handled only when they are in a reasonably dry and friable condition (i.e., when they crumble), if they are frozen or contain sufficient water to smear, stick, or hold water on their surface, all soil handling, cultivation, preparation, or planting must be suspended until the soil and the prevailing weather conditions are sufficiently dry to avoid these soil conditions.

D20/164 TREE ROOTS

- Protected area: Do not cut roots within precautionary protection area.
 - Size of area: n/a.
- Excavation in protected area:
 - Method: By hand.
 - Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
- Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
- Cutting:
 - Make clean smooth cuts with no ragged edges.
 - Pare cut surfaces smooth with a sharp knife.
 - Treatment of cut roots: Not required.
- Backfill: As dug material, enriched with amelioration as section Q31.

D20/168 SITE CLEARANCE

- Timing: Before topsoil stripping, if any.
- General: Clear site of rubbish, debris, and vegetation. Do not compact topsoil.

- Treatment: Apply a suitable non-residual herbicide to areas to receive planting.

D20/170 REMOVING SMALL TREES, SHRUBS, HEDGES AND ROOTS

- Identification: Clearly mark trees to be removed.
- Small trees, shrubs, and hedges: Cut down.
- Roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Safety: Comply with HSE/ Arboriculture and Forestry Advisory Group safety leaflets.

D20/175 FELLING LARGE TREES

- Definition: Girth over 600mm
- Identification: Clearly mark trees to be removed
- Comply with HSE/ Arboriculture and Forestry Advisory Group safety leaflets.
- Felling: As close to the ground as possible.
- Stumps: Remove mechanically to a minimum depth of 300 mm below ground level. Obtain approval before removing by winching. Do not use other trees as supports or anchors.
- Work near retained trees: 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.

D20/220 STRIPPING TOPSOIL

- General: Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, buildings, paving / roads and other areas shown on drawings.
- Depth:
 - Remove to an average depth of 150 mm.
 - Give notice where the depth of topsoil is difficult to determine and seek the Landscape Architects advice.
- Handling: Handle topsoil for reuse or sale in accordance with clause 225.
- Around trees: Do not remove topsoil from below the spread of trees to be retained.
- Site storage: Keep separate from excavated sub-soil.

D20/221 TREATING TOPSOIL

- Treatment: Apply a suitable translocated non residual herbicide.
- Timing: Not less than two weeks before excavating topsoil.

D20/225 HANDLING TOPSOIL

- Standard: To BS 3882.
- Only handle when dry but not when [over wet] or saturated.
- Minimise handling occasions and the aggression of handling.
- Use only 360 excavators, with toothed buckets. Do not use bulldozers.
- Aggressive weeds:
 - Species: Included in the Weeds Act, section 2 or the Wildlife and Countryside Act, Schedule 9, part II.
 - Give notice: Obtain instructions before moving topsoil.
- Contamination: Do not mix topsoil with:
 - Subsoil, stone, hardcore, rubbish or material from demolition work.
 - Other soil or material containing aggressive weeds, sharps, plastics, and non-soil forming materials and notifiable animal or plant diseases.
 - Oil, fuel, cement, or other substances harmful to plant growth.
 - Other classifications of topsoil.
- Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.

D20/310 UNSTABLE GROUND

- Generally: Ensure that the excavation remains stable at all times.
- Give notice: Without delay if any newly excavated faces are too unstable to allow earthwork support to be inserted.
- Take action: If instability is likely to affect adjacent structures or roadways, take appropriate

emergency action.

D20/330 UNRECORDED FEATURES

- Give notice: If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

D20/370 UNDERGROUND STRUCTURES IN LANDSCAPE AREAS

- Generally: Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
- Minimum depth below finished levels:
 - Grass, ground cover and perennial planting: 500 mm.
 - Shrub planting: 750 mm.
 - Within 2 m of tree planting: 1000 mm.
- Walls and slabs remaining: In every 10 m² of wall or slab, make a drainage hole at least 600 mm diameter.

DISPOSAL OF MATERIALS

D20/410 EXCAVATED TOPSOIL STORAGE

- Storage: Stockpile in temporary storage heaps:
- Location to be agreed. Maximum of 2 m high continuous mounds laid on free draining site base. Avoid compaction. Do not track on the mounds, work from adjacent areas only. Place and remove material by backactor with a toothed bucket only.

D20/415 EXCAVATED TOPSOIL REMOVAL

- General: Remove from site.

D20/420 TOPSOIL STORAGE HEAPS

- Location: To be agreed
- Standard: To BS 3882
- Height (maximum): 2m
- Protection:
 - Do not place any other material on top of storage heaps.
 - Do not allow construction plant to pass over storage heaps.
 - Prevent compaction and contamination.

D20/441 SURPLUS SUBSOIL

- Excavated material: Stockpile in temporary storage heaps, as clause 410
- Retained material: Spread and level surplus subsoil on site using backactor toothed bucket.
 - Locations: To be agreed.
 - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
- Remaining material: Remove from site.

D20/450 WATER

- Generally: Keep all excavations free from water until:
 - Formations are covered.
 - Below ground constructions are completed.
- Basement structures and retaining walls are able to resist leakage, water pressure and flotation.

D20/454 GROUND WATER LEVEL, SPRING OR RUNNING WATER

- Give notice: If it is considered that the excavations are below the water table.
- Springs/ Running water: Give notice immediately if encountered.

FILLING

D20/500 PROPOSED FILL MATERIALS

- Details: Submit full details of proposed fill materials to demonstrate compliance with specification, including:
 - Type and source of imported fill.
 - Proposals for processing and reuse of material excavated on site.
 - Test reports as required elsewhere.
- Timing: At least 21 days before starting filling.

D20/510 HAZERDOUS, AGGRESSIVE OR UNSTABLE MATERIALS

- General: Do not 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, including material that is:
 - Frozen or containing ice.
 - Organic.
 - Contaminated or noxious.
 - Susceptible to spontaneous combustion.
 - Likely to erode or decay and cause voids.
 - With excessive moisture content, slurry, mud or from marshes or bogs.
 - Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
 - Unacceptable, class U2 as defined in the Highways Agency 'Specification for highway works', clause.

D20/530 PLACING FILL

- Surfaces of excavations and areas to be filled: Free from loose soil, topsoil, organic material, rubbish and standing water.
- Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
- Adjacent structures, membranes, and buried services:
 - Do not overload, destabilise, or damage.
 - Submit proposals for temporary support necessary to ensure stability during filling.
 - Allow 14 days (minimum) before backfilling against in situ concrete structures.
- Layers: Place so that only one type of material occurs in each layer.
- Earthmoving equipment: Vary route to avoid rutting.

D20/535 COMPACTION GENERALY

- General: Compact fill not specified to be left loose as soon as possible after placing.
- After compaction: Surface of each layer must be well closed, showing no movement under compaction plant, and without cracks, holes, ridges, loose material, and the like.
- Defective areas: Remove and recompact to full thickness of layer using new material.

D20/540 BENCHING FILL

- As advised by the engineers.

D20/550 LANDSCAPE AREAS

- Fill: Material capable of compaction by light earthmoving plant.
- Filling: Layers not more than 200 mm thick. Lightly compact each layer to produce a stable soil structure.

D20/610 COMPACTED FILLING FOR LANDSCAPE AREAS

- Fill: Prevent compaction and contamination.
- Filling: Layers not more than 200 mm thick. Lightly compact each layer to produce a stable soil structure.

D20/615 LOOSE TIP FILLING FOR LANDSCAPE AREAS

- Filling: Do not firm, consolidate, or compact when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

Paving / Planting / Fencing / Street Furniture

Q28 TOPSOIL AND SOIL AMELIORATIONS

To be read with Preliminaries / General conditions.

SYSTEM OUTLINE

Q28/115 TOPSOIL SYSTEM FOR SuDS MEADOW SEEDING – TYPE A

- Description: To meadow seeded areas within SuDS.
- Composition
 - Topsoil: 150mm depth topsoil as per clause Q28/335 – Type C.
 - Ameliorants: None
 - Accessories: None

Q28/115 TOPSOIL SYSTEM FOR MEADOW SEEDING – TYPE B

- Description: To meadow seeded areas outside SuDS.
- Composition
 - Topsoil: 150mm depth topsoil as per clause Q28/335 – Type B.
 - Ameliorants: None
 - Accessories: None

Q28/115 TOPSOIL SYSTEM FOR AMENITY GRASS SEEDING – TYPE C

- Description: To amenity grass seeded areas outside SuDS.
- Composition
 - Topsoil: 150mm depth topsoil as per clause Q28/335 – Type C.
 - Ameliorants: None
 - Accessories: None

Q28/135 TOPSOIL SYSTEM FOR SuDS SHRUB PLANTING – TYPE A

- Description: To all shrub and herbaceous planting areas within SuDS.
- Composition
 - Topsoil: Minimum 900mm depth topsoil as per clause Q28/335 – Type A. Depth to Engineer's details.
 - Ameliorants: None
 - Accessories: None

Q28/135 TOPSOIL SYSTEM FOR SHRUB PLANTING – TYPE B

- Description: To all shrub planting outside of SuDS areas.
- Composition
 - Topsoil: Minimum 450mm depth topsoil as per clause Q28/335 – Type C.
 - Ameliorants: None
 - Accessories: None

Q28/145 TOPSOIL SYSTEM FOR SuDS TREE PITS – TYPE A

- Description: To all tree pits within SuDS.
- Composition
 - Topsoil: 1800x1800mm 900mm depth topsoil as per clause Q28/335 – Type A.
 - Ameliorants: None
 - Accessories: None

Q28/145 TOPSOIL SYSTEM FOR TREE PITS – TYPE B

- Description: To all tree pits outside of SuDS areas.
- Composition
 - Topsoil: 1800x1800mm 450mm depth topsoil as per clause Q28/335 – Type C.
 - Ameliorants: None
 - Accessories: None

PRODUCTS

Q28/300 PREPARATION MATERIALS GENERALY

- Purity: Free of pests and disease.
- Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
- Contamination: 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.
 - Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
 - Objectionable odour: None.
 - Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.
 - Dispose of contaminated material as instructed at own cost.

Q28/310 MATERIALS NOT PERMITTED

- Materials: Peat and products containing peat.
- Site material that following testing is deemed unsuitable for reuse as a standalone material or in a blended mix.

Q28/335 IMPORTED TOPSOIL, SuDS TOPSOIL – TYPE A

- Description: To shrub planted areas within SuDS
- Quantity: Provide as necessary to complete the work.
- Standard: To BS 3882. Plus, the following:
- Source: Submit proposals.
- Classification: Proprietary product suitable for Rain Gardens
- Texture to BS 3882, as manufactured
- Reaction, to BS 1377-3: pH 6 - 7.5.
- Crumb structure: Made up of discernible crumbs.
- Stones:
 - Size in any dimension (maximum): 35mm.
 - Stone content by dry weight (maximum): 15%.

In addition to conforming to the above BS standard the soil should also conform to the following.

Visual Examination:

- Provide the Landscape Architect (LA) a 1kg sealed sample bag of representative soil, for approval of the physical structure of the soil, before chemical analysis is progressed. Obtain approval of a sample load on site of not less than 1m³. Retain for comparison with subsequent loads.

Q28/335 IMPORTED TOPSOIL, LOW FERTILITY TOPSOIL – TYPE B

- Quantity: To all meadow seeded areas outside of SuDS.

- Quantity: Provide as necessary to complete the work.
- Standard: To BS 3882. Plus, the following:
- Source: Submit proposals.
- Classification: Specific purpose – Low fertility
- Texture to BS 3882, figure 1: as manufactured
- Reaction, to BS 1377-3: pH 6 - 7.5.
- Crumb structure: Made up of discernible crumbs.
- Stones:
 - Size in any dimension (maximum): 35mm.
 - Stone content by dry weight (maximum): 15%.

In addition to conforming to the above BS standard the soil should also conform to the following.

Visual Examination:

- Provide the Landscape Architect (LA) a 1kg sealed sample bag of representative soil, for approval of the physical structure of the soil, before chemical analysis is progressed. Obtain approval of a sample load on site of not less than 1m³. Retain for comparison with subsequent loads.

Q28/335 IMPORTED AND / OR REUSED SITE TOPSOIL, MULTIPURPOSE TOPSOIL – TYPE C

- Description: To all shrub/planting areas and tree pits outside of SuDS, and all areas of amenity grass seeding.
- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work. All topsoil is to conform to this mix. Existing site topsoil can be used where it confirms to this specification or can be blended with other materials to conform to this mix.
- Standard: To BS 3882. Plus, the following:
- Source: Submit proposals.
- Classification: Multipurpose.
- Texture to BS 3882, figure 1: Medium loam.
- Reaction, to BS 1377-3: pH 6 - 7.5.
- Crumb structure: Made up of discernible crumbs.
- Stones:
 - Size in any dimension (maximum): 35mm.
 - Stone content by dry weight (maximum): 15%.

In addition to conforming to the above BS standard the soil should also conform to the following.

Visual Examination:

- Provide the Landscape Architect (LA) a 1kg sealed sample bag of representative soil, for approval of the physical structure of the soil, before chemical analysis is progressed. Obtain approval of a sample load on site of not less than 1m³. Retain for comparison with subsequent loads.

Physical Parameters:

Clay (less than 0.05mm)	5-27%
Silt (0.002 – 0.05mm)	5-45%
Sand (0.05 – 2.00mm)	45-85%

(At least 50% of the total soil fraction should fall within the medium to coarse sand range)

Permeability	10-5 – 10-6 m/sec
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Chemical Parameters:

PH value (1:2.5 soil/water)	6-7.5 pH
Electrical Connectivity (1:2.5 soil/water)	<1500 µS/cm

Electrical Connectivity (1:2.5 CaSO ₄)	<2800 µS/cm
Organic Matter (Walkey Black)	4.0 – 10.0%
Total Nitrogen (Dumas)	>0.2%
Extractable Phosphorus (RB427)	>26 mg/l
Extractable Potassium (RB427)	>220 mg/l
Extractable PMagnesium (RB427)	>50 mg/

Potential Contaminants:

Total Arsenic (As)	<20 mg/kg
Total Cadmium (Cd)	<1 mg/kg
Total Chromium (Cr)	<130 mg/kg
Total Lead (Pg)	<450 mg/kg
Total Mercury (Hg)	<8 mg/kg
Total Selenium (Se)	<35 mg/kg
Total Copper (Cu)	<190 mg/kg
Total Nickel (Ni)	<50 mg/kg
Total Zinc (Zn)	<300 mg/kg
Water soluble Boron (B)	<3 mg/kg
Total Cyanide	<20 mg/kg
Total (mono) Phenols	<3 mg/kg
Sulphate (soluble)	<1.2 g/l
Sulphide (total)	<25 mg/kg
Sulphur (Elemental)	<500 mg/kg
TPH 9sum C6-C40)	<100 mg/kg
PAHs (USEPA16)	<40 mg/kg

Q28/336A IMORTED AND / OR REUSED SITE SUBSOIL

- Description: To all landscape areas outside of SuDS.
- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work. All subsoil is to conform to this mix. Existing site subsoil can be used where it confirms to this specification or can be blended with other materials to conform to this mix.
- Source: Submit proposals.
- Crumb structure: Made up of discernible crumbs.

Visual Examination:

- The subsoil shall have a defined granular, crumb or blocky structure and shall be reasonably free from non-soil material, brick and other building materials and wastes, hydrocarbons, plant matter, roots of perennial weeds and any other foreign matter or material or substance that would render the sand unsuitable for use.
- Provide the Landscape Architect (LA) a 1kg sealed sample bag of representative soil, for approval of the physical structure of the soil, before chemical analysis is progressed.

Physical Parameters:

Clay (less than 0.05mm)	5-27%
Silt (0.002 – 0.05mm)	5-50%
Sand (0.05 –2.00mm)	40-85%
Max. Stone Content (2 –50 mm)	50% by weight
Max. Stone size in any dimension	75mm

Chemical Parameters:

PH value (1:2.5 soil/water)	5.0-8.2
Electrical Connectivity (1:2.5 soil/water)	<2000 µS/cm
Electrical Connectivity (1:2.5 CaSO ₄)	<2800 µS/cm
Organic Matter (Walkey Black) %	<2.0

Potential Contaminants:

Total Arsenic (As)	<20 mg/kg
Total Cadmium (Cd)	<1 mg/kg
Total Chromium (Cr)	<130 mg/kg
Total Lead (Pb)	<450 mg/kg
Total Mercury (Hg)	<8 mg/kg
Total Selenium (Se)	<35 mg/kg
Total Copper (Cu)	<190 mg/kg
Total Nickel (Ni)	<50 mg/kg
Total Zinc (Zn)	<300 mg/kg
Water soluble Boron (B)	<3 mg/kg
Total Cyanide	<20 mg/kg
Total (mono) Phenols	<3 mg/kg
Sulphate (soluble)	<1.2 g/l
Sulphide (total)	<25 mg/kg
Sulphur (Elemental)	<500 mg/kg
TPH 9sum C6-C40)	<100 mg/kg
PAHs (USEPA16)	<40 mg/kg

- Subsoil is to be naturally occurring material, excavated from a level immediately below the vegetable topsoil down to a maximum depth of 2.0m from the original ground level with no stone or rubble material larger specified. The material shall be a friable consistency, free draining, free from extraneous material and pernicious weeds. The subsoil must contain no chemical or domestic refuse or pollutants that would be harmful to short term or permanent plant or animal life. The material will not be extreme in either alkalinity or acidity. It is not expectable to use topsoil within subsoil layers.
- All sources of material shall be stated and a 2m³ minimum sample shall be provided for analysis, inspection and approval prior to deliveries to site. All supplies thereafter shall conform to approved samples. The LA may reject any subsoil with high stone or rubble content.
- Provide a chemical and nutrient analysis from an approved testing station as Q28/615A Analysis of Topsoil if importation is required.

Q28/337A HORTICULTURAL TREE PIT SAND

- Quantity: To all tree pits.
- Quantity: Provide as necessary to complete the work.
- Source: Submit proposals.
- Classification: Horticultural Tree Sand

Visual examination:

- The sand shall be free from non-soil material, brick and other building materials and wastes, hydrocarbons, plant matter, roots of perennial weeds and any other foreign matter or material or substance that would render the sand unsuitable for use.

Physical Parameters:

Clay + Silt (less than 0.05mm)	0-10%
Sand (0.05 –2.00mm)	90-100%

(At least 50% of the total soil fraction should fall within the medium to coarse sand range)

Permeability	10-4 – 10-6 m/sec
Max. Stone Content (2 –50 mm)	15% by weight
Max. Stone size in any dimension	50mm

Chemical Parameters:

PH value (1:2.5 soil/water)	5.5-8.2
Electrical Connectivity (1:2.5 soil/water)	<1500 µS/cm
Electrical Connectivity (1:2.5 CaSO ₄)	<2800 µS/cm
Organic Matter (Walkey Black) %	<0.5

Potential Contaminants:

Total Arsenic (As)	<20 mg/kg
Total Cadmium (Cd)	<1 mg/kg
Total Chromium (Cr)	<130 mg/kg
Total Lead (Pb)	<450 mg/kg
Total Mercury (Hg)	<8 mg/kg
Total Selenium (Se)	<35 mg/kg
Total Copper (Cu)	<190 mg/kg
Total Nickel (Ni)	<50 mg/kg
Total Zinc (Zn)	<300 mg/kg
Water soluble Boron (B)	<3 mg/kg
Total Cyanide	<20 mg/kg
Total (mono) Phenols	<3 mg/kg
Sulphate (soluble)	<1.2 g/l
Sulphide (total)	<25 mg/kg
Sulphur (Elemental)	<500 mg/kg
TPH 9sum C6-C40)	<100 mg/kg
PAHs (USEPA16)	<40 mg/kg

- Provide the Landscape Architect (LA) a 1kg sealed sample bag of representative sand, for approval of the physical structure of the sand, before chemical analysis is progressed.

Q28/355 ORGANIC MATERIALS FOR ALL NORMAL SOFT LANDSCAPE AREAS

- Description: To landscape areas outside of rain gardens and basins, and excluding meadow seeded areas.
- Type: Peat free multipurpose compost for general landscape use, conforming to the Compost Quality Protocol (CQP), see WRAP or details.
- Source: The Contractor shall supply the CA with a certificate to prove that the compost has been sterilised.
- A 1kg sealed sample of the compost shall be submitted to the CA for approval along with the results and analysis in accordance with D20/842 Analysis of Topsoil, at least 7 days prior to its proposed incorporation into the Works.
- In addition to this analysis, shall determine:
 - the category or degree of infestation of cecids, sciarids, mites or pest species of nematodes as per ADAS approved analysis methods.
 - the content of dry matter, pH wet/dry, ammonium nitrogen, phosphate, potassium, and magnesium content as per ADAS approved analysis methods.
 - the presence and level of pesticides as per ADAS approved analysis methods.

Q28/401 FERTILIZERS – TYPE A

- Description: To be incorporated into topsoil and manufactured topsoil for all shrub planted areas including planted rain gardens, trees, and amenity grassed areas.
- Type: Controlled release.
 - Application: Spread evenly, in transverse directions.
 - Timing: Immediately before cultivation.
 - Typical Coverage: 75g/m² unless otherwise specified.
- Source: Contractor's choice.
 - Product reference: Enmag (11%N: 21%P2O₅: 9%K₂O: 6%MgO).

Q28/401 MAINTENANCE FERTILIZERS – TYPE B

- Description: To all Shrub planted areas.
- Type: Controlled release.
- Source: Contractor's choice.
 - Typical Coverage: 40g/m² unless otherwise specified.
 - Product reference: Enmag (11%N: 21%P2O5: 9%K2O: 6%MgO).

EXECUTION

Q28/610 TOPSOIL ANALYSIS

- Soil to be analysed: Imported topsoil.
- Soil analyst: Submit proposals.
- Samples: Collect in accordance with BS3882.
- Submit: Declaration of analysis:
 - Chemical analysis and contaminants.
 - Maximum stone content, stone size and pH value.
 - Nutrient content, pH value and textural classification.
 - pH value and textural classification.
 - Phytotoxic and CLEA elements; and
 - Textural classification and maximum stone content.
 - Report detailing soil analyst's recommendations.
- The Landscape Contractor shall obtain a sample and analysis, (based on 2 samples per source, or per 500m³, whichever is less), to determine all of requirements listed above and the following additional tests: the soil texture, the presence and level of asbestos, arsenic, boron, cadmium, chromium (total), copper, cobalt, cyanide, lead, manganese, mercury, molybdenum, nickel, phenols, Polyaromatic Hydrocarbons, Petroleum Hydrocarbons (total), selenium, sulphate, sulphide, zinc as per ADAS approved analysis methods.
- (As per methods approved by the Agricultural Development and Advisory Service (ADAS) of the Department for Environment, Food and Rural Affairs, or other methods approved by LA).
- Samples of existing topsoil to be tested shall be taken from the full depth of topsoil. Small samples shall be taken at regular intervals across the designated area to form a 2kg composite sample. At least five representative samples shall be taken from a stockpile of topsoil to form a 2kg composite sample.
- Each sample shall be thoroughly mixed; 500g of the sample shall be submitted for analysis and the remainder stored by the Landscape Contractor. Each sample shall be stored in a polythene bag and labelled with the date and location of sampling.
- The results and a brief analysis and interpretive report making comment on suitability of material in comparison to BS3882 and the specification included within this document, including recommendations for additives and/or amendments to bring sub-grade soil up to the required specification standard. Topsoil requirements and to support broadleaf native trees with particular reference to the requirement identified above and levels of metals and the likely effects of these on nutrient availability and protection of plant growth. A certificate of Analysis should also be provided shall be submitted to the LA who may adjust the composition of any specified fertiliser of soil ameliorant and the rate of application, after examination of the Landscape contractor's cost. Where suitable amelioration is not possible the LA may reject the topsoil.

Q28/615 TESTING MATERIALS

- Material to be analysed: All imported aggregates, soils, and Organic materials.

- Laboratory: Submit proposals.
- Samples: Collect in accordance with BS3882.
- Submit:
 - Declaration of analysis: As directed.
 - Report detailing analyst's recommendations.

Q28/620 IMPORTING TOPSOIL

- Give notice: Before stripping topsoil for transfer to site.
 - Notice period: 14 days.

Q28/625 SAMPLE LOADS FOR IMPORTED TOPSOIL

- Deliver to site a sample load: of 5kg.
- Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
 - Notice period: 14 days.

Q28/630 DOCUMENTATIONS FOR IMPORTED TOPSOIL

- Timing: Submit before importation and instillation on site, and at handover.
- Contents:
 - Full description of all soil components.
 - Record of source for all soil components.
 - Record drawings showing the location and depth of all soils by type and grade.
 - Declaration of analysis: in accordance with BS 3882, clause 6 and Table 1.
- Number of copies: 1

Q28/635 DOCUMENTATIONS FOR COMPOST AND COMPOSTED MATERIALS FOR IMPORTED SOIL IMPROVERS

- Timing: Submit before importation and instillation on site, and at handover.
- Contents:
 - Full description of all compost components.
 - Record of source for all compost components.
 - Analyst's report for each test carried out.
 - Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
 - Quality Compost Protocol certification: Required.
- Number of copies: 1.

Q28/650 NOTICE

- Give notice before:
 - Setting out.
 - Spreading topsoil.
 - Applying herbicide.
 - Applying fertilizer.
 - Visiting site during maintenance period.
- Period of notice: One week.

Q28/651A SOIL PLACEMENT – GENERAL METHOD

- Soil will be loosely placed in order to avoid compaction and minimise the need for remedial cultivation. The following soil profiles are to be constructed, dimensions are final settled depths, subject to soil properties. The contractor should allow for settlement. If the contractor considers this assumption shall differ due to the properties of the soil being used, he should draw this to the attention of the Landscape Architect before proceeding. The following dimensions are post settlement and the landscape contractor should allow for this in his works:

	Topsoil	Subsoil (Existing site where free draining)
Rain Garden / Bioretention	900mm	-
General Shrub Planting	450mm	150mm
Amenity Grass Areas	150mm	150mm
Meadow Grass Areas	150mm	150mm
Tree Pits	As tree pit details	

- Scarified fill and subsoil are not to be traversed in the course of topsoil placement. To achieve this soiling will take place in strips the width of which will be determined by the working reach of excavating equipment.

Q28/655 MECHANICAL TOOLS

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

Q28/656A SCARIFY SUBGRADE BEFORE LAYING SUBSOIL

- Scarify subgrade to promote free drainage. The surface on which soil is to be placed will be thoroughly broken up to a depth of 250mm before soil placement. A cross-ripping effect will be achieved by two passes at an angle of 45 degrees to the edge of the strip at 90 degrees to one another. Remove all stones with largest dimension exceeding 150mm. **If standing water is present on ripped surface inform the LA before placing subsoil.**

Q28/657A SUBSOIL PLACEMENT

- Subsoil will be placed by loose tipping. The soil will be spread and levelled by excavator fitted a toothed bucket (not a grading bucket).
- Where, because of restrictions on space, end tipping is impractical the Contractor will tip subsoil onto a clean surface in close proximity to the excavator. These will then be re-lifted onto the area being prepared using a toothed bucket.
- The final surface will be left in a rippled (typically 50mm deep ripple), rather than smooth condition, to allow topsoils to notch in.
- It should be noted that subsoils may need to be placed prior to some construction elements e.g., kerbing to provide support and avoid later disturbance. Subsoils, which are necessarily placed, shall be protected at all times from compaction and contamination.

Q28/658A SPREADING SUBSOIL

- Lay on free draining base material before spreading subsoil. Spread in layers not exceeding 150mm and firm each layer before spreading the next. Ensure the first 200mm depth of material is incorporated with the base material unless otherwise specified. Do not over-compact when firming. At the time of laying, both the material and the weather must be reasonably dry. Overall minimum depths after firming and setting to be as follows: See Q28/616.

Q28/660 GRADING SUBSOIL

- Standard: In accordance with BS 8601
- General: Grade (using a toothed bucket) to smooth flowing contours to achieve specified finished levels of topsoil.
- Loosening:
 - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300mm.
 - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450mm.
 - Rock and chalk subgrades: Lightly scarify to promote free drainage.

- Areas of thicker topsoil: Excavate locally.
- Avoid over compaction.

Q28/665 SUBSOIL SURFACE PREPERATION

- Standard: In accordance with BS 3882
- General: Excavate and/ or place fill to required profiles and levels, as section D20.
- Loosening:
 - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 150mm.
 - Rock and chalk subgrades: Lightly scarify to promote free drainage.
- Stones: Immediately before spreading topsoil, remove stones larger than 50mm.
- Remove from site: Arisings, contaminants and debris and Builders rubble.

Q28/670 INSPECTING FORMATIONS

- Give notice: Before spreading topsoil for lawn areas and planting beds.
- Notice period: One week.

Q28/675 PREPERATION OF UNDISTERBED TOPSOIL

- Standard: In accordance with BS 4428
 - Grading and cultivation: Category A
- Hard ground: Break up thoroughly.
- Clearing: Remove visible roots and large stones with a diameter greater than 50mm
- Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
- Fallow period (minimum): n/a
 - Weed control: At appropriate times: n/a

Q28/680 SURPLUS TOPSOIL TO BE RETAINED

- Generally: Spread and level on site:
 - Locations: To be Confirmed.
 - Protected areas: Do not raise soil level within root spread of trees that are to be retained.

Q28/685 SURPLUS MATERIALS TO BE REMOVED

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

Q28/690 TOPSOIL STORAGE HEAPS

- Location: To be Confirmed.
- Standard: To BS3882.
- Height (maximum): 2.0m.
- Width (maximum): 3.0m, but can be of a continuous length, dependant on site constraints.
 - Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
 - Excavate and place material in linear soil heaps using a toothed bucket on a 360 excavator. Do not doze material. Excavate and place material only during dry weather conditions and only when the material is dry, friable, or not 'over-wet' or plastic or liquid.
 - When the storage heaps are formed and when the material remains mostly dry, seal the surface of the slopes with the back of a 360 bucket to promote surface runoff.

- Grade the adjacent material to ensure that water is not standing or ponding adjacent to the base of mounds.
- Store topsoil and subsoil in separate and distinct mounds.
- Treat with a suitable herbicide at appropriate times to kill weed growth a minimum of 2 months before the material is to be reused.
- Protection:
 - Do not place any other material on top of storage heaps.
 - Do not allow construction plant to pass over storage heaps.
 - Prevent compaction and contamination, by fencing and covering as appropriate.

Q28/691A TOPSOIL PLACEMENT

- Topsoil will be placed over subsoil without tracking or another compaction. Subsoil will be placed by loose tipping. Trucks will drive or reverse up to the edge of the subsoil and deposit their loads in conical mounds spaced at centres, which reflect the depth of cover, required. The soil will be spread and levelled by excavator fitted with a toothed bucket.
- Where, because of restrictions on space, end tipping is impractical the Contractor will tip topsoil onto a clean surface in close proximity to the excavator. These will then be re-lifted onto the area being prepared using a toothed bucket.
- Temporary roads/ surfacing: Remove before spreading topsoil.
- Layers:
 - Depth (maximum): 150mm.
 - Gently firm each layer before spreading the next.
- Depths after firming and settlement (minimum): 150mm.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.
- Ensure that each layer is not compacted when firming, retaining a free draining material. At the time of laying, both the material and the weather must be reasonably dry (see preceding clauses for more detail). Overall minimum depths after firming and settlement to be: See Q28/651A.
- All obstructions greater than 25mm revealed in the course of re-spreading will be removed and these will be disposed of appropriately.
- All subsoil is to be scarified prior to topsoil placement and is to be free draining without any ponding surface water. If this is not the case, inform the LA and site Engineer before proceeding.
- Topsoil must not be tracked when being spread and following spreading (tracked or inappropriate large machinery), and a bulldozer or grading bucket must not be used. The contractor is to work out of areas, working away from finished placed and graded surfaces.
 - Minimum 150mm below DPC of adjoining buildings.
- Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 20mm.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

Q28/700 GRADING OF TOPSOIL

- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
 - Hollows and ridges: Not permitted.
- Finished levels after settlement: 25mm above adjoining paving, kerbs, manholes etc.

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

Q28/705 HANDLING TOPSOIL

- Aggressive weeds: Give notice and obtain instructions before moving topsoil.
- Plant: Select and use plant to minimize disturbance, trafficking, and compaction.
- Contamination: Do not mix topsoil with:
 - Subsoil, stone, hardcore, rubbish or material from demolition work.
 - Other grades of topsoil.
- Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
- Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit less 3%, to BS1377-2.

Q28/710 SPREADING TOPSOIL ON ALL PLANTING AREAS OUTSIDE OF RAIN GARDENS

- Standard: In accordance with BS 3882
- Temporary roads / surfacing: Remove before spreading topsoil.
- Layers:
 - Size: (max) 150mm
 - Gently firm each layer before spreading the next
- Depth after firming and settlement: 150mm for grass areas, 450mm for shrub and tree planting.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

Q28/715 LOOSE TIPPING OF TOPSOIL

- General: Do not firm, consolidate, or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

Q28/718 CULTIVATION

- Compacted topsoil: Break up to full depth.
- Tilth: Loosen, aerate, and break up topsoil to a tilth suitable for blade grading.
 - Depth: 200mm.
 - Particle size (maximum): 2-8mm.
 - Timing: Within a few days before planting.
 - Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels:
 - 25mm above adjoining paving or kerbs.
 - 50mm above adjoining lawns; and
 - Minimum 150mm below DPC of adjoining buildings.
- Undesirable material brought to the surface: Remove visible weeds, roots, and large stones with any dimension exceeding 30mm.
- Soil within root spread of trees and shrubs to be retained: **Do not dig or cultivate.**

Q28/720 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- Above adjoining paving or kerbs: 30mm.
- Below DPC of adjoining buildings: Not less than 150mm.
- Shrub areas: Higher than adjoining grass areas by 50mm.
- Within root spread of existing trees: Unchanged.

- Adjoining soil areas: Marry in.
- Thickness of turf or mulch: Included.
- **Within SuDS: To Engineers' details.**

Q28/725A SOIL COMPACTION

- Resulting from the operation of machinery in the course of placing soil, spreading, and removing obstructions will be relieved by complete cultivation to the full depth of the profile required for the vegetation type concerned.

Q28/810 APPLYING COMPOST

- As clause Q28/355 (Multi-Purpose Compost)
- Locations: All planting areas outside of rain gardens.
- Application rate for all landscape areas:
 - 100mm thick layer of Multi-Purpose Compost cultivated into the top 200mm of topsoil in bed.
 - Timing: Apply prior to cultivation.
- Application rate for grass:
 - 30mm thick layer of Multi-Purpose Compost cultivated into the 150mm layer of topsoil.
 - Timing: Apply prior to cultivation.
- Thoroughly mix both layers of material intimately with the top

Q28/820 APPLYING GENERAL FERTILIZER CONTROLLED RELEASE FERTILISER FOR ALL SOFT LANDSCAPE AREAS

- As clause Q28/401
- Locations: All soft landscape areas.
- Application: Spread evenly, carefully incorporating below mulch materials.
 - Timing: Immediately before cultivation.
 - Application rate: 75g/m², in accordance with manufacturer's instructions.
- Other requirements: Apply with compost (as clause 810) before cultivation.

Q28/821A WEED CONTROL

- Maintain all landscape areas free from weed growth up to the time of cultivation by the use of a suitable translocated herbicide complying strictly with all manufacturers' recommendations.

Q28/845 APPLYING LOOSE MULCH

- Description: For all planting areas and tree pits outside of SuDS.
- Timing: Upon completion of planting
- Preparation: Clear all weeds
- Coverage of mulch (minimum)
 - Planting beds (depth): 50mm
 - Trees: In a circular area of 500 mm radius measured from the tree stem, 50 mm depth
- Finished level of mulch: 50mm above adjacent grassed or paved areas

COMPLETION

Q28/905 APPLYING MAINTENANCE FERTILIZER TO SOIL

- Description: To shrub and herbaceous planting areas.
- Time of Year: To suppliers' recommendations
- Application: To suppliers' recommendations
- Rate: To suppliers' recommendations

Q28/920 APPLYING MULCH

- Description: For all planting areas and tree pits outside of SuDS.
- Timing: At end of the maintenance period
- Watering: Ensure that soil is thoroughly moistened prior to mulching, applying water where necessary.
- Planting beds: Re-mulch.
 - Depth (minimum): 50 mm
- Trees: Re-mulch.
 - Depth (minimum): 50 mm

Q30

SEEDING / TURFING

To be read with Preliminaries / General Conditions.

GENERAL INFORMATION / REQUIREMENTS

Q30/115 SEEDING AND TURFED AREAS

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

Q30/120 CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable.

Q30/130A 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.

Q30/145 WATERING

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

Q30/150 WATER RESTRICTIONS

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

Q30/160 NOTICE

- Give notice before:
 - Setting out.
 - Applying herbicide.
 - Applying fertilizer.
 - Preparing seed bed.
 - Seeding or turfing.
 - Visiting site during maintenance period.
- Period of notice: 2 weeks.

Q30/170 SETTING OUT

- Boundaries: Mark clearly.
- Delineation: In straight lines or smoothly flowing curves as shown on drawings.

Q30/175A USE OF CHEMICALS GENERALLY

- The Contractor must use a certified operator, take appropriate safety precautions, and comply with all relevant regulations.

- The Contractor must dispose of empty or unwanted containers and chemicals, including unused diluted tank mixture, in a safe way in accordance with regulations. Disposal will be off site unless prior arrangements have been made.
- The Contractor must notify the CA of his intention to apply chemicals, the product to be used and the dose rates.

PREPERATION

Q30/210 HERBICIDES

- Description: To all grass areas.
- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation.

Q30/212 SEED BED CLEANING BEFORE SOWING

- Description: To all grass areas.
- Operations: As seed supplier's recommendations.

Q30/255A FINAL CULTIVATION

- Timing: After grading and fertilizing.
- Seed bed: Reduce to fine, firm tilth with good crumb structure.
 - Depth: 25 mm.
 - Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
 - Remove surface stones/earth clods exceeding:
 - General areas: 30 mm.
 - Fine lawn areas: 10 mm.
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

Q30/260A SOIL LEVELS

- Soil 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.

Q30/265A EDGES

- Unless otherwise stated, finished levels after settlement as clause Q28/720.
- Not less than 150mm below DPC of adjoining buildings.
- 30mm higher for grass areas than for adjoining shrub areas, cleanly edged to smooth flowing lines.
- Married in with adjoining soil areas and existing grass areas.

Q30/270A APPROVAL

- Obtain approval of LA of all levels and grading before grassing or planting.

Q30/300A FALLOW PERIOD

- Programme cultivation of topsoil to allow for it to lie fallow for as short a time as possible. During the period prevent growth and seeding of weeds by further cultivation and/or application of herbicide as instructed.

SEEDING

Q30/311 AMENITY GRASS MIX

- Description: To all amenity grass areas.
- Supplier: Germinal Seeds.
 - Mixture reference: A19 (All purpose landscaping)
- Application rate: 50g/m² onto topsoil.

Q30/312 MEADOW MIX GRASS MIX – TYPE A

- Description: To all meadow grass areas outside of SuDS.
- Supplier: Emorsgate Seeds.
 - Mixture reference: EM2 Standard General Purpose Meadow Mix.
- Application rate: 4 g/m² onto subsoil.
- Mixed With.
 - Mixture reference: EC1 Standard Cornfield Mix.
- Application rate: 2 g/m² onto subsoil.

Q30/312 WET MEADOW GRASS MIX – TYPE B

- Description: To all wet meadow areas within SuDS.
- Supplier: Emorsgate Seeds.
 - Mixture reference: EM8 Meadow Mixture for Wetlands.
- Application rate: 4 g/m² onto subsoil.
- Mixed With.
 - Mixture reference: EC1 Standard Cornfield Mix.
- Application rate: 2 g/m² onto subsoil.

Q30/319 QUALITY OF SEED

- Description: All amenity grass seed.
- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties.
 - Standard: EC purity and germination regulations.
 - Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- Samples of mixtures: Submit when requested.

Q30/322 QUALITY OF WILDFLOWER SEED

- Description: All meadow grass seed.
- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties.
 - Standard: EC purity and germination regulations and Department for Environment, Food and Rural Affairs Higher Voluntary Standard.

- Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- Samples of mixtures: Submit when requested.

Q30/330 SOWING

- General: Establish good seed contact with the root zone.
- Method: To suit soil type, proposed usage, location, and weather conditions during and after sowing.
- Distribution: 2 equal sowings at right angles to each other.

Q30/335 GRASS SOWING SEASON

- Grass seed generally: April to June or September to October.

Q30/336 WILDFLOWER SOWING SEASON

- Wildflower seed generally: Between December and February.

Q30/352 EDGES TO SEEDED AREAS ADJACENT TO PLANTING BEDS AND TREE PITS

- Timing: After seeded areas are well established.
- Edges: Clean straight lines or smooth curves.
 - Mulch and soil: Drawback to permit edging.
- Arisings: Remove.
- Completion: Re-spread soil and mulch.

PROTECTING / CUTTING

Q30/530 FIRST CUT OF AMENITY GRASSED AREAS

- Timing: When grass is reasonably dry.
 - Height of initial growth: 40-75 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove.
- Height of first cut: 25 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site

Q30/540 FIRST CUT OF MEADOW GRASSED AREAS

- Timing: When grass is reasonably dry.
 - Height of initial growth: 40-75 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove.
- Height of first cut: 25 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site

Q30/590 CLEANLINESS

- Soil and arisings: Remove from hard surfaces.

- General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.

MAINTENANCE (PRE-PRACTICAL COMPLETION)

Q30/610 FAILURES OF SEEDING / TURFING

- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period or as instructed by the LA.
- Defective materials or workmanship: Areas that have failed to thrive.
 - Exclusions: Theft or malicious damage.
- Method of making good: Recultivation and reseeding/ returfing.
- Timing of making good: Submit proposals.

Q30/620 MAINTAINING AMENITY GRASSED AREAS

- Duration: Carry out the following operations from completion of seeding/ turfing until the: end of the rectification period or as instructed by the LA.
- Maximum height of growth at any time: 75 mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 35 mm.
 - Arisings: Remove.
- Bulb planting areas: Do not cut until bulb foliage has died down.
- Trimming: All edges.
 - Arisings: Remove.
- Weed control: Substantially free of broad-leaved weeds.
 - Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
 - Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: As Clauses Q30/145.

Q30/650 MAINTAINING GRASSED AREAS WITH PERENIAL WILDFLOWERS

- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period or as instructed by the LA.
- Preparation: Before each cut remove all litter and debris.
- Cutting first season:
 - Time of first cut: August
 - Height of first cut: 50mm / Seed supplier's recommendations
 - Frequency of subsequent cutting: To maintain height through autumn and in March.
- Cutting in second and subsequent growing seasons:
 - Time of first cut: August "Hay Cut" leaving arisings for 7 days before removing.
 - Height of cut: 50mm / Seed supplier's recommendations
 - Frequency of subsequent cutting: To maintain height through autumn and in March.
- Trimming: All edges.
 - Arisings: Remove.
- Stones brought to the surface: Remove.

- Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: As Clauses Q30/145.

Q30/680A MAINTENANCE FERTILIZER FOR AMENITY GRASSED AREAS ONLY

- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period or as instructed by the LA.
- March application: 15:10:10 Spring turf fertilizer at 35 g/m².
- September application: 5:10:10 Autumn turf fertilizer at 50 g/m².

Q31

EXTERNAL PLANTING

To be read with Preliminaries / General conditions.

GENERAL INFORMATION / REQUIREMENTS

Q31/111A RECOMMENDATIONS

- The Contractor is to follow the recommendations set down in BS 4428: 1989 Code of Practice for General Landscape Operations (excluding hard surfaces) unless stated otherwise in this specification.

Q31/112 SITE CLEARANCE GENERALY

- General: Remove rubbish, concrete, metal, glass, decayed vegetation, and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 50 mm.
- Contamination: Remove material containing toxins, pathogens, or other extraneous substances harmful to plant, animal, or human life.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.

Q31/118 SOIL CONDITIONS

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

Q31/120 CLIMATIC CONDITIONS

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

Q31/125 TIMES OF YEAR FOR PLANTING

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/ October or April/ May.
- Herbaceous plants (including marginal): September/ October or March/ April.
- Container grown plants: At any time if ground and weather conditions are favourable.
 - Watering and weed control: Provide as necessary.
- Dried bulbs, corms, and tubers: September/ October.
- Colchicum (crocus): July/ August.
- Green bulbs: After flowering in spring.
- Wildflower plugs: Late August to mid-November or March/ April.
- Aquatic plants: May/ June or September/ October.

Q31/126A PLANTING GENERALY

- 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.

Q31/130 MECHANICAL TOOLS

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

Q31/145 WATERING

- Quantity: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As maintenance schedule, as necessary to ensure establishment and continued thriving of planting.

Q31/150 WATERING RESTRICTIONS

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

Q31/160 NOTICE

- Give notice before:
 - Setting out.
 - Applying herbicide.
 - Applying fertilizer.
 - Delivery of plants/ trees.
 - Planting shrubs.
 - Planting trees into previously dug pits.
 - Watering.
 - Visiting site during maintenance period.
- Period of notice: Two weeks.

Q31/200 PLANTS / TREES – GENERAL

- Condition: Materially undamaged, sturdy, healthy and vigorous.
- Appearance: Of good shape and without elongated shoots.
- Hardiness: Grown in a suitable environment and hardened off.
- Health: Free from pests, diseases, discoloration, weeds, and physiological disorders.
- Budded or grafted plants: Bottom worked.
- Root system and condition: Balanced with branch system.
 - Standard: The relevant parts of BS 3936.
- Species: True to name.
- Origin/ Provenance: All native stock to be of certified British provenance. All other stock to be of local provenance where possible.
- Definition: Origin and Provenance have the meaning given in the National Plant Specification.

Q31/216 PLANTS / TREES – SPECIFICATION CRITERIA

- Name, forms, dimensions, and other criteria: To the relevant part of BS 3936.

Q31/225 BULBS / CORMS / TUBERS

- Condition: Firm, entire, not dried out or shrivelled.
- Health: Free from pests, diseases, and fungus.
- Handling: Remove from packaging immediately.
- Storage: Permitted only when necessary.
 - Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.

- Duration: Minimum period.
- Temperature: 18-21°C.

Q31/235 CONTAINER GROWN PLANTS / TREES

- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
- Plants: Centred in containers, firmed and well-watered.
- Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
- Hardiness: Grown in the open for at least two months before being supplied.
- Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

Q31/245 LABELLING AND INFORMATION

- General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
 - Full botanical name.
 - Total number.
 - Number of bundles.
 - Part bundles.
 - Supplier's name.
 - Employer's name and project reference.
 - Plant specification, in accordance with scheduled National Plant Specification categories.
- Additional information: Submit on request: Country of origin.

Q31/246 LABELLING INFORMATION

- Standard: To BS 3936.

Q31/255 PLANTS / TREES RESERVED AT SUPPLIER'S PREMISES

- Types/ Species: As plant schedule.
- Predelivery inspection: Give notice.
- Labelling: Identify inspected plants/ trees as reserved for use on this project.

Q31/260 PLANT / TREE SUBSTITUTION

- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering:
- Submit alternatives, stating:
 - Price.
 - Difference from specified plants/ trees.
- Approval: Obtain approval from Landscape Architect and Local Planning Authority before making any substitution.

Q31/265 PLANT HANDLING, STORAGE, TRANSPORT AND PLANTING

- Standard: To CPSE 'Handling and establishing landscape plants'.
- Frost: Protect plants from frost.
- Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g., by dropping from a vehicle.
- Plant packaging: Coextruded polyethylene bags with black interior and white exterior.
- Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.

- Planting: Upright or well balanced with best side to front.

Q31/266A TEMPORARY STORAGE ON SITE

- After delivery, if planting is not to be carried out immediately plants to be stored as follows:
 - Rootballed plants shall be placed cheek to cheek and the ball covered with sand or earth to prevent drying out.
 - Trees propped against sturdy post and rail (at 45° - 60°) with bark protected from scuffing.
 - Bare root plants shall be "heeled in" by placing the roots in a prepared trench and covering them with earth which should be thoroughly watered to avoid air pockets around the roots.
- If for any reason the surface of the roots become dry the roots shall be unpacked, the bundles opened up and each group of plants heeled in separately and clearly labelled.
- Plant material awaiting planting shall not at any time be exposed to drying winds, sun, or frost.
- Plant material so stored shall not be subject to any extra cost, and any losses, or damage, or vandalism to the material whilst so stored shall be the sole responsibility of the Contractor.

Q31/267A REMOVAL FROM TEMPORARY STORAGE

- Thoroughly water all plants prior to lifting/removing from containers. Roots of bare-rooted stock must be well moistened before removal of the heeling in medium.
- Do not expose unduly to the atmosphere roots of bare-rooted stock. During planting operations exposure should be for the minimal practical period. If at any time the surface or roots become dry, water immediately.
- Where specified, thoroughly soak roots of bare rooted stock in a container of root dip/water solution immediately prior to planting.
- LA reserves the right to reject any plants not adequately protected in the above manner described.

Q31/280 TREATMENT OF TREE WOUNDS

- Cutting: Keep wounds as small as possible.
 - Cut cleanly back to sound wood using sharp, clean tools.
 - Leave branch collars. Do not cut flush with stem or trunk.
 - Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

Q31/285 PROTECTION OF EXISTING GRASS

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

Q31/290 SURPLUS MATERIAL

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

Q31/291A MAIN CONTRACTOR'S GUARANTEE

- The employer requires the main contractor to indemnify him against any losses over the contractual period by way of a guarantee, applied to all plant materials.

PREPARATION OF PLANTING BEDS / PLANTING MATERIALS

Q31/300 HERBICIDE

- Locations: All planting areas.
- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
 - Duration (minimum): As manufacturer's recommendation.

Q31/301A USE OF CHEMICALS GENERALLY

- The Contractor must use a certified operator, take appropriate safety precautions, and comply with all relevant regulations.
- The Contractor must dispose of empty or unwanted containers and chemicals, including unused diluted tank mixture, in a safe way in accordance with regulations. Disposal will be off site unless prior arrangements have been made.
- The Contractor must notify the CA of his intention to apply chemicals, the product to be used and the dose rates.

Q31/305 WEED CONTROL FOR INVASIVE NON-NATIVE WEEDS

- Locations: All planting areas.
- General: Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding.

Q31/325A COMPOST MULCH

- Material: IPAS100 landscape grade green compost from a reputable source approved by the CA and to be free from toxic matter or disease carrying substances.
- The Contractor shall supply and spread a 50mm thickness tapering to 25mm at the centre of mulch over completed tree planting within grass areas unless otherwise specified. Minimum mulch circle to be 900mm diameter.
- Mulch will be spread evenly by hand without damage to planted shrubs as a continuous cover.
- Spread a 50mm minimum depth continuous layer over shrub beds. Ensure no plants are covered by mulch.
- The timing of the above operation shall be such that the ground is moist but not sodden, or wet, when the mulch is applied.

Q31/330A ROOT DIP

- For all bare root stock:
 - Manufacturers: Algenure Products:
 - Stone Hill, Egerton, Ashford, Kent TN27 9DU.
 - Tel: 01233 756241 or equal and approved supplier.
 - Product: Algenure Root Dip or equal and approved product.
 - Application: Root dip all bare root stock prior to planting, following manufacturers' instructions.

Q31/375A CULTIVATION

- Compacted topsoil: Break up to full depth.
- Apply fertiliser and soil ameliorant as clauses Q28/355 and Q28/390
- Cultivation: Loosen, aerate, and break up soil by handheld non-mechanical means into particles of 2-8mm.

- Depth: 150 mm.
- Timing: Within a few days before planting.
- Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels: As sections D20 and Q28.
- Undesirable material brought to the surface: Remove visible weeds, roots, and large stones with any dimension exceeding 20mm.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

PLANTING SHRUBS / HERBACEOUS PLANTS / BULBS

Q31/395A PLANTING GENERALY

- Only complete during dry weather conditions when the soil is dry or moist, not wet.
- Before planting remove any non-perishable containers and carefully prune any badly damaged roots.
- Root dip - prior to planting in their final positions root dip all bare root stock in Root Dip Solution, in accordance with the manufacturer's instructions.
- Ensure plant is upright or well balanced with best side to the front. Carefully firm or backfill packing around evenly spread roots or rootball and heel well in. Ensure no roots are exposed or above ground.
- Plant as relevant clause for each type of stock.
- Water plants thoroughly immediately after planting, using a fine rose.
- Immediately after planting cut back any damaged, dead or diseased branches and remove any weak, thin or malformed growth or cut back specific species as schedules. If leader are damaged or removed, replace stock.
- Where and to the extent appropriate for the species cut back to encourage bushy growth.
- After planting fork and/or rake soil to a fine tilth with approved cambers and no hollows to trap moisture
- Plant only during suitable dry weather conditions. Inform the CA and LA in advance of planting. If the CA or LA requires planting to be held back due to unacceptable ground or weather conditions, the Contractor must comply at his own cost.
- **Ensure no plant foliage is covered by mulch. Lift ground cover plant foliage out of mulch, or plant shallowly to avoid smothering. Plant Lavenders high so the base of the plants is not below finished ground level. In both cases finished mulch level should correspond to nursery planted level.**

Q31/400 RANDOM PLANT LAYOUT TO ALL BEDS

- Description: To all shrub, herbaceous, and bulb planting groups.
- Spacing: Evenly, avoiding straight lines.
- Density: As plant schedule.

Q31/405 SHRUB PLANTING PITS

- Timing: Excavate 1-2 days (maximum) before planting.
- Sizes: 150 mm wider than roots when fully spread and as deep as container.
- Pit bottom improvement Break up to a depth of 150 mm.
- Backfilling material: Reuse excavated material.

- Finished level to be at original soil mark on shrubs and 30mm above surrounding level to allow for settlement.

Q31/406A SHRUB PLANTING

- To BS 3936 Part 1 and BS 3936: Part 4.
- Roses to BS 3936 Part 2.
- Groundcover to BS 3936 Part 10.
- Sizes and form as scheduled on Soft Landscape Plan.
- The root system will be well developed but compact and well furnished with fine fibrous rootlets. Where specified cell or container grown the roots will thoroughly permeate the contents of the container without being pot bound. Plants showing signs of being pot bound or waterlogged will be rejected.
- Container grown stock and bare root to be pit planted.
- Timing: Excavate pits 1-2 days (maximum) before planting.
- Spacing: Evenly, avoiding straight lines.
- Density: As plant schedule.
- Pit sizes: 150 mm wider than roots when fully spread and as deep as container.
- Pit bottom improvement Break up to a depth of 150 mm.
- Backfilling material: Topsoil.
- Finished level to be at original soil mark on shrubs and 30mm above surrounding level to allow for settlement.

Q31/407A SPECIMEN SHRUB PLANTING

- To BS 3936 Part 1 and BS 3936: Part 4.
- Roses to BS 3936 Part 2.
- Groundcover to BS 3936 Part 10.
- Sizes and form as scheduled on Soft Landscape Plan.
- The root system will be well developed but compact and well furnished with fine fibrous rootlets. Where specified cell or container grown the roots will thoroughly permeate the contents of the container without being pot bound. Any spiralling roots are to be cut back. Plants/trees showing signs of being pot bound or waterlogged will be rejected.
- Timing: Excavate pits 1-2 days (maximum) before planting.
- Spacing: Evenly, avoiding straight lines.
- Density: As plant schedule.
- Pit sizes: 300 mm wider than roots when fully spread and 150 mm deeper than root system.
- Pit bottom improvement Break up to a depth of 150 mm.
- Backfilling material: Topsoil.
- Finished level to be at original soil mark on shrubs and 30mm above surrounding level to allow for settlement.

Q31/435 CLIMBING PLANTS USED AS GROUND COVER

- Planting:
 - Canes or other supports: Remove.
 - Arrangement: Spread stems.
- Fixing: Pinned to ground to ensure good contact.

Q31/445 PLANTING BULBS / CORMS / TUBERS

- To BS 3936: Part 9.

- Sizes as scheduled on Planting Schedule.
- Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
- Backfilling: Finely broken soil. Lightly firm to existing ground level.
- Naturalized planting in existing grassed areas:
 - Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
 - Planting: Neatly remove a plug of turf and replace after planting.

Q31/476A SHRUB, HERBACEOUS AND BULB BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required:
- Ameliorant/ Conditioner: Not required.
 - Application rate: N/A.
- Fertilizer: Not required.
 - Application rate: N/A.

Q31/480 AFTER PLANTING

- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
- Top dressing: Not required.
 - Depth: N/A.

Q31/485A MULTCHING PLANTING BEDS

- Material: As Clause Q31/325.
 - Purity: Free of pests, disease, fungus, and weeds.
- Preparation: Clear all weeds.
- Coverage: 50 mm depth.

PLANTING TREES

Q31/491A GENERALY

- Plant trees upright, unless otherwise instructed, in centre of pit and at original soil depth.
- Pruning: Damage to roots, bark or branches to be pruned out. The CA has the right to reject any tree where pruning has resulted in the loss of the natural form of the tree and where extensive damage may result in the death of the tree.
- Remove non-perishable containers and rootball wrappings prior to planting and trim spiralling or damaged roots immediately before planting. Thin open textured untreated hessian and non-galvanised fine wire mesh may be retained during planting, double thickness or treated hessian must be removed. Top third of all wrappings to be removed during tree pit back filling.
- Where specified cell or container grown the roots will thoroughly permeate the contents of the container without being pot bound. Any spiralling roots are to be cut back. Plants/trees showing signs of being pot bound or waterlogged will be rejected.
- Thoroughly water to field capacity immediately after planting using a low-pressure hose.

Q31/500 TREE PLANTING

- Standard: Prepare trees and transplant in accordance with BS 8545.

Q31/501A SPECIMEN TREES

- Supply and plant.
- As scheduled on planting plans and schedule.
- All trees to be supplied from Hillier Nurseries, unless otherwise agreed with the Landscape Architect.
- No tree to be planted until it has been found compliant with Table 1, p.21, BS 8545:2014
- To BS 5236, where relevant, size categories as scheduled - 24 months Defects Liability on these items).
- All tree positions to be approved by LA before planting.
- Pits: As appropriate to tree size. Ensure that pits are at least 300 mm deeper and 300 mm wider than root systems when fully spread. Break up bottom of pits to a depth of 300 mm and ensure free drainage of substrate.
- Backfill materials: As clause Q31/586.
- Support: As the following clauses and '501 Tree Pit and Hedge Details' drawing.
- Ensure no water is standing in excavated pits. If standing water is present, contact the Landscape Architect (LA) before proceeding.
- Trees shall be compliant with table 1, page 21, BS 8545:2014
- Tree stakes will be removed after no more than two growing seasons.
- Where there are signs of compaction/standing water lightly forked base of pit to 300 mm to ensure free drainage, ensure there is no standing water before backfilling commences.

Q31/505 TREE PITS FOR TREES PLANTED IN SOFT LANDSCAPE AREAS

- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit Detail as drawing
- Pit sides: Scarify.
- Backfilling material: As Clause Q31/586.
- Accessories: Urban Root Rain System, and Rootball Fixing System as details.
- Ensure pits are free draining and there is no standing water before backfilling commences.

Q31/506A PLANTING TREES GENERALLY

- The Contractor is responsible for setting-out of all plants in accordance with the contract drawings. All setting out of feathered and standard trees to be approved before planting commences. The Contractor shall also generally ensure that his work will not interfere with, or damage any part of existing cables, pipes, or other services, above or below ground level. Any damage to existing services caused by the Contractor must be rectified at his own expense.
- Drawings showing location of services should be made available for inspection by the Main Contractor.
- Trees shall be planted at the same depth at which they were previously growing. Great care shall be taken to avoid damage to the root systems, stems, and crowns when planting.
- The Contractor shall make full allowance for provision of all lifting machinery, variable forklifting, or suitable lifting hooks etc., required for lifting standard, extra heavy standard and semi-mature trees into position having confirmed weight and dimension of all specimen trees reserved with the named suppliers. The contractor shall not depend on lifting trees by

the trunk or using Hessian or other straps tied or wrapped around tree trunks, this is not acceptable practice.

- Make good at no extra cost to the contract any damage incurred to kerbs, hardstanding etc., during planting of specified trees.
- If standing water is present in the excavated pit, contact the LA before proceeding.
- Any damaged trees shall be taken off site by the Contractor and replaced at his own expense. The Contractor shall assume full responsibility for the survival of the trees immediately they leave the nominated suppliers nursery.
- Ensure base of pit is broken up as directed for particular stock site.
- The prepared backfill is to be firmed around plants in 150mm layers to ensure that no major voids are left, taking into account particular soil conditions. Backfill, once placed, should be slightly proud of surrounding ground level (prior to turfing in turf areas), but should not form any obvious mound around the base of the tree. Any excess backfill after planting should be evenly distributed around the immediate vicinity of the planted tree/shrub.
- Where trees are in grass areas edge a circle of bare earth around each tree (as specified on drawings) maintain this weed and grass free. Finish with 50mm mulch layer tapering to 25mm at centre as detail.
- Planting is to be carried out in suitable weather. Stock shall not be planted in conditions of frost, frozen ground, strong wind, or heavy rainfall that renders the soil waterlogged or in a sticky condition. Whenever possible, planting should take place when the weather is dull and the ground is moist and workable, as long as this does not delay in the overall works. All plants lifted during the landscaping contract by frost should be re-firmed.

Q31/507A WATERING CONTAINERISED TREES AND SHRUBS AFTER PLANTING

- The Contractor shall make themselves fully aware of all factors that affect water supply, including source and nature of supply prior to submitting their tenders.
- Trees and shrubs shall be thoroughly watered in as they are planted. In addition, allowance shall be made for 3 no. very thorough waterings over newly planted areas. The first operation to be undertaken immediately after the planting scheme is completed (subject to prevalent weather conditions and approval of the LA). All watering operations must be of sufficient duration to reach field capacity. Extra waterings, pre practical completion shall be carried out in periods of dry weather, drought or as instructed by the LA and allowance for extra watering provision shall be made throughout the maintenance and defects liability period.

Q31/508A ROOTBALLED TREES

- Will be enclosed with hessian, heavy gauge polythene or other suitable porous/non-porous materials and supported by wire mesh or timber frame to prevent collapse of the rootball. Unless stated otherwise, the rootball will be a minimum of 600mm diameter and of sufficient depth to contain the fibrous roots. Remove non-perishable rootball wrappings prior to planting and trim spiralling or damaged roots immediately before planting. Thin open textured untreated hessian and non-galvanised fine wire mesh may be retained during planting, double thickness or treated hessian must be removed. Top third of all wrappings to be removed during tree pit back filling.

THE FOLLOWING BARRIER CLAUSES ARE SUBJECT TO FINAL PROXIMITY OF BELOW GROUND SERVICES

Q31/510 TREE PIT ROOT BARRIERS REROOT 600 – TYPE A

- Locations: Where trees are planted within less than 3m of a hard surface or below ground service shallower than 600mm deep.
- Manufacturer: BlueGreen Urban.
 - Product reference: ReRoot 600. RER600A
 - Product depth: 600mm.
 - Product thickness: 1mm.
- Depth of top of root barrier below finished soil level: Flush.
- Installation: With sides vertical to Manufacturer's instructions.

Q31/510 TREE PIT ROOT BARRIERS REROOT 1000 – TYPE B

- Locations: Where trees are planted within less than 3m of a hard surface or below ground service shallower than 1m deep.
- Manufacturer: BlueGreen Urban.
 - Product reference: ReRoot 1000. RER1000A
 - Product depth: 1000mm.
 - Product thickness: 1mm.
- Depth of top of root barrier below finished soil level: Flush.
- Installation: With sides vertical to Manufacturer's instructions.

Q31/510 TREE PIT ROOT BARRIERS REROOT 2000 – TYPE C

- Locations: Where trees are planted within less than 3m of a hard surface or below ground service between 1 and 2m deep.
- Manufacturer: BlueGreen Urban.
 - Product reference: ReRoot 2000. RER220X2.0A
 - Product depth: 2000mm.
 - Product thickness: 2mm.
- Depth of top of root barrier below finished soil level: Flush.
- Installation: With sides vertical to Manufacturer's instructions.

Q31/512 TREE PIT ACCESSORIES: TREE IRRIGATION KIT – TYPE A

- Manufacturer: GreenBlue Urban.
 - Product reference: Rootrain Urban or Metro as appropriate.
- Type: Perforated plastics irrigation pipe, 60 mm diameter, in circle above and around sides of rootball, with plastics grille cap flush with ground level. Flexible perforated watering pipe to be positioned around the root ball of semi-mature trees as the manufacture's recommendations with regard to appropriate size and installation. All ends of pipes to have secured cover with tie attachment.

Q31/512 ROOTRAIN ARBORVENT – TYPE B

- Manufacturer: GreenBlue Urban Ltd
 - Web: www.greenblue.com
 - Email: enquiries@greenblueurban.com
 - Tel: +44 (0)1580 830800
 - Address: Northpoint, Compass Park, Junction Road, Bodiam, East Sussex, TN32 5BS
- Product reference: Rootrain Arborvent
- Type: RRARBV1D/ RRARBV2D/ RRARBV3D/ RRARBVDI3D/ RRARBV150B

Q31/521A NEW STRONG STRIMMER GUARD

- Manufacturer: English Woodlands or similar approved
 - Product reference: Strimmer Guard – Heavy Duty
- Type: Standard
- Material: Plastic
- Size: 225mm high
- Colour: Black

Q31/526 UNDERGROUND GUYING FOR TREES

- Locations: Trees within rain gardens
- Manufacturer: GreenBlue Urban or similar approved
 - Product reference: SASDMA: ArborGuy Deadman Anchor
- Anchoring system: Strapped anchor deadman guying system supplied with 3 slip knot guys webbing straps and ratchet tensioner.
- Installation: Ensure tree is positioned correctly and vertically prior to tightening guy line tensioner.

Q31/535 TREE STAKING GENERALLY

- Stakes: Softwood, peeled chestnut, larch, or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - Preservative treatment: Not required.
- Nails: To BS 1202-1, galvanized, minimum 35 mm long and with 10 mm diameter heads.
- Stake size (minimum): 50 mm diameter.

Q31/556 TRIPPLE STAKING

- Description: To all standard trees planted outside of rain gardens.
- Staking:
 - Stripped Bark Larch Post
 - Position: Equally spaced, as Drawing.
 - Driving: Vertically drive at least 300mm into bottom of pit before planting.
 - Backfilling: Consolidate material around stake.
 - Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
- Height of stakes: Cut off to approximately 900mm above ground level.
- Tying: Green-tech Natural Hessian Tree belt.
- Horizontal bracing: Flexible webbing within 25 mm of top of stake.
- Tying: Secure flexible webbing around tree stem firmly without causing constriction or chafing. Ensure tree is supported from all directions.
- Fixings: Nailed or buckle fixed to stake.
- Nails: To BS 1202-1, galvanized round wire, minimum 35 mm long and 3.75 mm gauge.

Q31/575A TREE PIT BACKFILLING MATERIAL FOR TREES OUTSIDE OF RAIN GARDENS

- Composition: Previously prepared and thoroughly mixed, comprised:
 - 70% Imported Topsoil, as Clause Q28/325,
 - 30% Organic Material, as Clause Q28/355; and
 - 300g Controlled Release Fertiliser per metre square of pit surface area, mixed into top 300mm of backfill only, as Clause Q28/390.
- Backfill and lightly firm in 150mm layers.
- Top 300mm of Backfilling Material, rest of pit to be back filled with Subsoil Q28/326A.

- Backfill and lightly firm in 150mm layers.

Q31/576 MULCHING TREES

- Material: As Clause Q31/325.
 - Purity: Free of pests, disease, fungus, and weeds.
 - Recycled content: Submit proposals.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: 25mm depth over the tree root ball tapering to 50mm over remaining pit in a 900mm radius circle from the tree stem.
- Finished level of mulch: 30mm below adjacent grassed or paved areas.

WOODLAND (MATRIX) PLANTING

Q31/600 WOODLAND WORK GENERALLY

- Services: Check for below and above ground services, including land drainage, in the vicinity. Give notice if they may be affected and obtain instructions before proceeding.
- Safety: Comply with Arboriculture and Forestry Advisory Group Safety leaflets.

Q31/605 EXISTING VEGETATION/ WEED CLEARANCE

- Surface vegetation clearance: Using suitable non-residual herbicide.
- Arisings: Remove.

Q31/615 EXISTING TREES/ SEEDLINGS/ COPPICE SHOOTS

- Existing trees and seedlings: Retain.
- Coppice shoots: Remove all stems and treat with suitable herbicide to prevent regrowth.

Q31/617 REMOVING TREES AND HEDGES

- Identification: Clearly mark trees and hedges to be removed.
- Work near retained trees: Where canopies overlap, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
- Arisings: Remove.
- Tree stumps: Remove manually or mechanically to a minimum depth of 300mm below ground level.

Q31/625 CULTIVATION

- General: Cultivate to full depth of topsoil.
- Consolidation: Submit proposals.
- Soil within root spread of trees to be retained: Do not plough or cultivate.

Q31/635 NOTCH PLANTING IN UNCULTIVATED GROUND

- Notching: Make a vertical 'I', 'L', 'T' or 'H' notch.
 - Depth: To accommodate full depth of roots.
- Planting: Plant tree, close notch with root collar at ground level and firm the soil.

Q31/665A SETTING OUT

- Distance between trees: As Planting Schedule.
- Distance between rows: As Planting Schedule

- Plant in staggered rows.
- Layout: As Planting Schedule
- Density: As Planting Schedule

PROTECTING / MAINTAINING / MAKING GOOD DEFECTS

Q31/710 MAINTENANCE

- Duration: Carry out the operations in the following clauses from completion of planting until the end of the rectification period or as instructed by the LA.
- Frequency of maintenance visits: In accordance with the agreed maintenance schedule.

Q31/720 FAILURES OF PLANTING

- Defects due to materials or workmanship not in accordance with the Contract: Plants/trees/ shrubs that have failed to thrive.
- Exclusions: Theft or malicious damage after completion.
- Rectification: Replace with equivalent plants/ trees/ shrubs.
- Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
- Timing of making good: During the next suitable planting season.

Q31/725A CUTTING BACK, TRIMMING AND CLIPPING

- Cut and trim specified species back at time of planting, as indicated on plant schedule.
- Trim hedges following planting to clean smooth line.

Q31/740 CLEANLINESS

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

Q31/750 PLANTING MAINTENANCE GENERALLY

- Weed control: Maintain weed free area around each tree and shrub.
 - Diameter (minimum): The larger of 1 m or the surface of original planting pit.
 - Keep planting beds clear of weeds: By maintaining full thickness of mulch.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows.
- Take care not to reduce depth or effect of mulch.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Staking: Check condition of stakes, ties, guys, and guards.
 - Broken or missing items: Replace.
 - Rubbing: Prevent.
 - Ties: Adjust to accommodate growth.
 - Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
 - Frequency of checks: At each scheduled maintenance visit.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/shrubs.
- Trees: Spray crown when in leaf during warm weather.
 - Timing: After dusk.

- Watering: As Q31/145, using a fine rose or sprinkler until full depth of topsoil is saturated as necessary to maintain healthy growth.

Q31/760 PLANTING MAINTENANCE – PRUNING

- General: Prune to promote healthy growth and natural shape.
 - Dead, dying, diseased wood and suckers: Remove.
 - Timing: As appropriate to the species.
 - Trees: Favour a single central leading shoot.
 - Only trim Prunus in summer
- Arisings: Remove.

Q31/770 NATIVE MATRIX PLANTING MAINTENANCE

- Watering: Only as necessary to prevent plants wilting.
- Loose plants: Refirm surrounding soil, without compacting.
- Weed control: Cut down and remove weeds prior to setting seed in a 1m diameter area around each tree.
- Mechanical, chemical, or mulching methods of vegetation control: Submit proposals.
- Ditches and drains: Keep clear.
- Watering: As Clause Q30/145.

Q31/790 FINAL MULCHING

- Timing: At end of the maintenance period.
- Watering: Ensure that soil is thoroughly moistened prior to re-mulching, applying water where necessary.
- Planting beds: Re-mulch as Q31/325.
- Trees: Re-mulch as Q31/325.

Q35

LANDSCAPE MAINTENANCE

To be read with Preliminaries / General Conditions.

GENERALLY

Q35/105 MAINTENANCE OBJECTIVES

- Duration:
 - **12 months maintenance and defect liability on soft landscape works.**
- The works are to be maintained to a high standard. They must be kept neat and clean at all times; weed and litter free, hard surfaces free from any soil or mud, mulch, or other undesirable material, with all planting in a healthy state. The Contractor shall pay particular attention to ensuring that the works themselves do not cause inconvenience or danger to the public.
- Visits per annum as Maintenance Schedule Table, attached to maintenance section. All equipment necessary for doing the work will be the contractor's own. Transporting all equipment to and from site will also be at his own cost.

Q35/110 NOTICE

- Give notice before:
 - Application of herbicide.
 - Application of fertilizer.
 - Watering.
 - Each site maintenance visit.
- Period of notice: 2 days.

Q35/130 RESTATEMENT

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

Q35/140 CONTROL OF MAMMALIAN PESTS

- Specialist firms: Submit proposals.
 - Method: Submit proposals.

Q35/145 CONTROL OF INVASIVE ANIMAL SPECIES

- Specialist firms: Submit proposals.
- Method: Submit proposals.

Q35/154A WEATHER CONDITIONS

- Re-planting, pruning, cultivation, grass cutting, and herbicide application shall be carried out in suitable weather conditions as all relevant contract clauses relating to pre-practical completion work.

Q35/155 WATERING

- Supply: Potable mains water or harvested rainwater.
- Quantity: Wet to field capacity.
- Application: Do not damage or loosen plants.

- Compacted soil: Loosen or scoop out, to direct water to rootzone.
- Frequency: Check weekly throughout first year, as necessary for the continued thriving of all planting.

Q35/160 WATER RESTRICTIONS

- General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

Q35/170 DISPOSAL OF ARISING

- General: Unless specified otherwise, dispose of arisings as follows: from all specified operations off site at own cost.

Q35/180A CHIPPING OR SHREDDING

- General: Not permitted on site.

Q35/182A PROGRESS REPORTS

- The Contractor shall report on hours kept, works done and warn of any problems found.

Q35/183A ADDITIONAL WORKS AND MATERIALS

- Any works required and confirmed to be in addition to the agreed programme are to be deemed fitting by the CA.

Q35/184A END OF RECTIFICATION PERIOD MAINTENANCE

- The Contractor is responsible to ensure all works have been carried out to the CAs satisfaction for the date of the handover visit. If for any reason the site is not considered acceptable for handover the contractor is responsible to repeat some or all maintenance operation as directed by the CAs.

Q35/185A VANDALISM

- Allowance for replacement of any works due to vandalism shall be provisional based on original bill prices.

Q35/186A MALICIOUS DAMAGE

- The Contractor is to inspect the planting at bi-monthly intervals to ascertain the extent of any losses or damage resulting from vandalism or other causes outside his control. Any such damage shall be immediately brought to the attention of the CA, and the Contractor shall carry out such remedial works as instructed. Any lost or damaged plants not recorded by the Contractor and agreed by the CA will be included in the list of plants for replacement by the Contractor. Relieve compaction: in areas which become apparent by hand forking or as agreed with CA.

Q35/190 LITTER

- Extraneous rubbish not arising from the contract work: Collect and remove from site.

Q35/195 PROTECTION OF EXISTING GRASS

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

Q35/197 CLEANLINESS

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

Q35/198A ANNUAL MULCHING

- Supply and spread additional mulch, as originally specified, to maintain a thickness of 50 mm across the entire planting beds.

GRASSED AREAS

Q35/210 MAINTENANCE OF GRASSED AREAS

- General: Maintain turf in a manner appropriate to the intended use.
- Soil and grass:
 - Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch, or wilt.
 - Waterlogging and compaction: Prevent.
 - Damage: Repair trampling, abrasion or scalping.
- Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
 - Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
- Litter and fallen leaves: Remove regularly to maintain a neat appearance.

Q35/220 GRASS CUTTING GENERALLY

- Before mowing: Remove litter, rubbish, and debris.
- Finish: Neat and even, without surface rutting, compaction, or damage to grass.
- Edges: Leave neat and well defined. Neatly trim around obstructions.
- Adjoining hard areas: Sweep clear and remove arisings.
- Drought or wet conditions: Obtain instructions.

Q35/221A 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.

Q35/225 TREE STEMS

- Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
 - Operations close to stems: Complete using hand tools.

Q35/235 BULBS AND CORMS IN GRASSED AREAS

- Before flowering: Do not cut.
- Interval between end of flowering and start of grass cutting (minimum): Six weeks.

Q35/255 FIRST CUT OF AMENITY GRASS

- See Clause Q30/530.

Q35/272 MAINTAINING MEADOW GRASS AREAS, BEYOND MOWING STRIPS

- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period or as instructed by the LA.
- Preparation: Before each cut remove all litter and debris.
- Height and frequency of cut in first growing season:
 - See clause Q30/650
- Trimming: All edges.
 - Arisings: Remove.
- Areas of settlement: Make good.

Q35/285 TOP DRESSING

- Location: Amenity Grass areas
- Timing: Following scarification and aeration
- Material: Dry sand
- Supplier: Contractor choice
 - Product reference: Submit proposal.
- Declaration of analysis: Submit.
- Samples: Not required
- Application rate: 1kg/m2

Q35/300 SCARIFYING

- Location: Amenity Grass areas
- Timing: October/November before top dressing
- Operations: Relieve thatch conditions and remove dead grass
- Depth: (max) 25mm
- Arisings: Remove

Q35/309 EDGES TO SEEDED AND TURFED AREAS

- Location: Planting beds and around newly planted trees.
- Timing: After seeded areas are well established.
- Edges: Cut to clean straight lines or smooth curves. Draw back soil to permit edging.
- Arisings: Remove.

Q35/311 RE-FORMING GRASS EDGES

- Location: All edges.
- Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

Q35/320 LEVELLING HOLLOWES AND BUMPS IN TURF

- Standard: To BS 7370-3, clauses 12.4 and 12.5.

Q35/330 SELECTIVE HERBICIDE

- Location: All Meadow and Amenity Grass Areas.
- Herbicide: Suitable for suppressing perennial weeds.
- Areas not to be sprayed: Bulb and corm planted areas when in leaf.

Q35/350 FERTILIZER - SPRING APPLICATION – TYPE A

- Type: Slow release.

- Application Rate: Suppliers recommendation.

Q35/350 FERTILIZER - AUTUMN APPLICATION – TYPE B

- Type: Slow release.
- Application Rate: Suppliers recommendation.

Q35/380 REINSTATEMENT OF DAMAGED LAWNS

- Damaged turf: Remove to a depth of 40 mm.
- Preparation: Cultivate substrate to a fine tilth.
- Reinstatement: Contractor's choice of returving or topsoiling and reseeding:
 - Returving: Quality and appearance to match existing.
 - Reseeding: Fill with fine topsoil to BS 3882 multi-purpose class, free from stones, debris, and weeds.
- Reseed with a seed mix to match existing grass in quality and appearance.
- Protection and watering: Provide as necessary to promote successful germination and/ or establishment.

SHRUBS / TREES / HEDGES

COMPLETE AS OUTLINED IN THE MAINTENANCE SCHEDULE

Q35/494A WEED CONTROL

- During the initial establishment of newly planted trees and shrubs, carry out maintenance of the planted areas as follows:
 - Keep all beds clear of weeds by use of approved herbicide and by hand.
 - Ring weeding - by herbicide and by hand maintenance ground around the base of each tree completely weed free to specified diameter around all stock.
 - By herbicide and by hand maintenance and all shrub and hedge planting beds completely weed free.
 - Hand weed areas as necessary to maintain weed free.
 - The Contractor shall notify the CA immediately of any spillages of herbicide liable to contaminate water courses/bodies or areas of vulnerable planting. All debris caused by hand weeding or herbicide application shall be removed from site. Ensure weed growth immediately adjacent to plant stock is removed by hand during each visit.
 - Extra materials must be separately quoted for, and agreed, before proceeding with the work.

Q35/495A LITTER COLLECTION

- As part of weed control operations 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.

Q35/500 ESTABLISHMENT OF NEW PLANTING

- Duration: 12 Months.
- Weed control:

- Method: Keep planting beds clear of weeds by maintaining full thickness of mulch.
- Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.
- Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
- Watering: As Clause Q30/145.

Q35/502 ESTABLISHMENT OF NEW PLANTING – FERTILIZER

- Time of year: One application to all areas in March or April at the end of each 12 months defects period.
- Type: Enmag, as specified
- Spreading: Spread evenly. Carefully lift and replace any mulch materials.
 - Application rate: As manufacturer's recommendations.

Q35/510 TREE STAKES AND TIES

- Inspection/Maintenance timing: As scheduled and immediately after strong winds.
- Stakes: Replace loose, broken, or decaying stakes to original specification.
- Ties: Adjust, refix, or replace loose or defective ties, allowing for growth and to prevent damage.
 - Where chafing has occurred, reposition, or replace ties to prevent further damage.
- Removal of stakes and ties: During spring when no longer required to support tree.
 - Fill stake holes with lightly compacted soil.

Q35/520 REFIRMING OF TREES AND SHRUBS

- Timing: After strong winds, frost heave and other disturbances.
- Refirming: Tread around the base until firmly bedded.
- Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and refirm.

Q35/530 TREE SHELTERS

- Loose or defective shelters: Adjust, refix, or replace to original specification and to prevent chafing.
- Remove: Two years after planting

Q35/540 PRUNING GENERALLY

- Pruning: In accordance with good horticultural and Arboricultural practice.
 - Removing branches: Do not damage or tear the stem or bark.
 - Wounds: Keep as small as possible and cut cleanly back to sound wood.
 - Aim to only Prune Prunus in summer.
 - Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Larger branches: Prune neither flush nor leaving a stub but using the branch bark ridge or branch collar as a pruning guide.
- Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well-balanced natural appearance.

- Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
- Disease or infection: Give notice if detected.
- Growth retardants, fungicide or pruning sealant: Do not use unless instructed.

Q35/545 PRUNING OF EXCESSIVE OVERHANG

- Timing: During monthly visits.
- Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
- Special requirements: None.

Q35/550 PRUNING OF EXCESSIVE HEIGHT

- Timing: As instructed.
- Operations: Remove excessive height as instructed.

Q35/555 PRUNING TREES AND SHRUBS

- Standard: To BS 7370-4.
- Special requirements: Growth retardants not permitted.

Q35/570 FORMATIVE PRUNING OF YOUNG TREES

- Standard: Type and timing of pruning operations to suit the plant species.
- Time of year: Do not prune during the late winter/ early spring sap flow period.
- Young trees up to 4 m high:
 - Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well-balanced head and ensure the development of a single strong leader.
 - Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
- Whips or feathered trees: Do not prune.
- Operatives: Member of the Arboricultural Association.

Q35/575 PRUNING ORNAMENTAL SHRUBS

- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g., flowers, fruit, autumn colour, stem colour.
- Suckers: Remove by cutting back level with the source stem or root.

Q35/580 PRUNING FLOWERING SPECIES OF SHRUBS AND ROSES

- Time of year:
 - Winter flowering shrubs: Spring.
 - Shrubs flowering between March and July: Immediately after the flowering period.
 - Shrubs flowering between July and October: Back to old wood in winter.
 - Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.

Q35/620 REMOVAL OF DEAD PLANT MATERIAL

- Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

Q35/625 CLIMBING PLANTS

- Pruning: Remove excess growth, to ensure that signs, light fittings, doors, and windows are kept clear at all times.
- Insecure growth: Attach to supporting wires or structures using Plastics clips.
- Supporting structures: Check and repair as necessary.

Q35/630 DEAD AND DISEASED PLANTS

- Removal: As soon as possible.
- Replacement: In the next scheduled round of replacement planting.

Q35/635 REINSTATEMENT OF SHRUB/ HERBACEOUS AREAS

- Dead and damaged plants: Remove.
- Mulch/ matting materials:
 - Carefully move to one side and dig over the soil, leaving it fit for replanting.
 - Do not disturb roots of adjacent plants.
- Replacement plants:
 - Use pits and plants: To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
 - Additional requirements: Submit details and cost of plants before ordering.
- Dressing: Controlled release fertilizer:
 - Type: As Clause Q28/390.
 - Application rate: As manufacturer's recommendations.

Q35/645 WEED CONTROL GENERALLY

- Weed tolerance: Weed to clear ground every two weeks.
- Adjacent plants, trees, and grass: Do not damage.

Q35/650 HAND WEEDING

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

Q35/657 HERBICIDE APPLICATION AND USE

- The Contractor shall ensure that all herbicide application is undertaken by a trained operative, in accordance with the manufacturer's directions and with the Health and Safety (Agriculture) (Poisonous Substance) regulations where they apply. He shall ensure at all times that the public are not subject to any hazard from the use of chemicals and that all equipment, containers and materials are kept in a secure place when on site and not in use, and that all equipment containers etc. are removed from site at the end of each day. Herbicide application can be carried out at all times when there will be at least possible danger to the public.

Q35/680 SOIL AERATION

- Compacted soil surfaces:
 - Prick up: To aerate the soil of root areas and break surface crust.
 - Size of lumps: Reduce to crumb and level off.

- Damage: Do not damage plants and their roots.

Q35/685 SOIL LEVEL ADJUSTMENT

- Level of soil/mulch at edges of beds: Reduce to 30 mm below adjacent grass or hard surface.
- Arisings (if any): Spread evenly over the bed.

Q35/690 MAINTENANCE OF LOOSE MULCH

- Top up: Annually.
- Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
- Weeding: Remove weeds growing on or in mulch by hand weeding.

Q35/695 FERTILIZING ESTABLISHED TREES AND SHRUBS

- Time of year: As schedule.
- Type of fertilizer: Controlled Release, as Clause Q28/390.
- Application: Spread evenly.
- Rate: As manufacturer's recommendations.

Q35/700 SNOW REMOVAL FROM SHRUBS/ TREES

- Standard: To BS 7370-4.
- Plants subject to snow removal: As instructed.
- Timing: Within 24 hours of snowfall.

TREE WORK

Q35/810 TREE WORK GENERALLY

- Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
- Protection: Avoid damage to neighbouring trees, plants, and property.
- Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
- Removing branches: Cut as Arboricultural Association Leaflet 'Mature tree management'. Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
- Appearance: Leave trees with a well-balanced natural appearance.
- Chain saw work: Operatives must hold a Certificate of Competence.
- Tree work: To be carried out by an approved member of the Arboricultural Association.
- **Only prune Prunus in summer**

Q35/815 ADDITIONAL WORK

- Defective, diseased, unsafe, or weak parts of trees additional to those scheduled for attention: Give notice if detected.

Q35/820 PREVENTION OF WOUND BLEEDING

- Standard: To BS 3998, clause 8.

Q35/825 PREVENTION OF DISEASE TRANSMISSION

- Standard: To BS 3998, clause 9 and Appendix B.

Q35/830 CLEANING OUT AND DEADWOODING

- Remove:
 - Dead, dying, or diseased wood, broken branches, and stubs.
 - Fungal growths and fruiting bodies.
 - Rubbish, windblown 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.
 - Other unwanted objects, e.g., tree houses, swings.

Q35/835 CUTTING AND PRUNING GENERALLY

- Tools: Appropriate, well maintained, and sharp.
- Final pruning cuts:
 - Chainsaws: Do not use on branches of less than 50 mm diameter.
 - Hand saws: Form a smooth cut surface.
 - Anvil type secateurs: Do not use.
 - Only prune prunus in summer
- Removing branches: Do not damage or tear the stem.
- Wounds: Keep 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.
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible. Large branches: Remove only with prior approval.
 - Remove in small sections and lower to ground with ropes and slings.
- Dead branches and stubs: When removing, do not cut into live wood.
- Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
- Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

Q35/840 CROWN REDUCTUION

- General: Cut back selectively to lateral or sublateral buds or branches to retain flowing branch lines without leaving stumps.
- Operations: As required to avoid conflicts.

Q35/845 CROWN LIFTING

- Clearances: Remove branch systems to give clearance.
 - Height: 2.1m.
- Removing branches: Remove whole branches back to the stem or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

Q35/850 CROWN THINNING

- Removing Branches: Remove inward growing, crossing, rubbing, dead and damaged branches.
- Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown.
 - Quantity: (max) 10%
- Cutting: Make no cuts more than 25mm diameter.
 - Branches: Cut back to lateral or sublateral buds or branches without leaving stumps.
- Appearance: Leave a uniform and well-balanced structure of branches and foliage.

Q35/855 CUTTING TREE ROOTS

- Excavating: Use hand tools only.
- Protected area: Do not cut roots within an area which is the larger of:
 - The branch spread of the tree.
 - An area with a radius of half the tree's height, measured from the trunk.
- Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
- Cutting:
 - Cutting: Make clean smooth cuts with a hand saw.
 - Wounds: Minimize. Avoid ragged edges.
 - Finishing: Pare cut surfaces smooth with a sharp knife.
- Backfilling:
 - Protection: Cover cut roots with clean sharp sand.
 - Material: Backfill with original topsoil.

Q35/860 REMOVING TREES, SHRUBS AND HEDGES

- Standards: To BS 3998, Appendix A and Health & Safety Executive (HSE)/ Arboricultural and Forestry Advisory Group Safety Leaflets.
- Existing services: Check for below and above ground services. Give notice if they may be affected.
- Shrubs and smaller trees: Cut down and grub up roots.
- Tree stumps:
 - Removal: Remove mechanically to a minimum depth of 300 mm below ground level.
 - Removal by winching: Give notice. Do not use other trees as supports or anchors.
- Protection: Avoid damage to neighbouring trees, plants, and property.
- Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
- Filling holes:
 - Material: Use as-dug material and/ or imported soil as required.
 - Finishing: Consolidate and grade to marry in with surrounding ground level.

Q35/865 BARK DAMAGE

- Wounds:
 - Do not attempt to stop sap bleeding.
 - Bark: Remove ragged edges using a sharp knife.
 - Wood: Remove splintered wood from deep wounds.
 - Size: Keep wounds as small as possible.
- Liquid or flux oozing from apparently healthy bark: Give notice.

Q35/870 CAVITIES IN TREES

- Investigation: Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay and give notice.
- Water filled cavities: Do not drain.
- Sound wood inside cavities: Do not remove.
- Cavity openings: Do not cover.

Q35/875A REMOVAL OF TREE STAKES

- All stakes and tie to be removed after no more than two growing seasons.

ANNUAL PLANT REPLACEMENT

Q35/880A ANNUAL DEFECTIVE PLANT REPLACEMENT

- In November each year replace all plants which are dead or have failed to thrive, conforming to the original specification, all as defective works.

12 MONTH MAINTENANCE PERIOD (FEEDING AND FERTILISING)

- Q35/881A Feed all grass areas with a suitable 'Weed and Feed' in April following Practical Completion, under suitable weather conditions. Sow granules evenly over all areas.
- Q35/882A Fertilise all shrub planting areas by spreading 60g per m² of Enmag fertiliser (Q28/390) evenly over the ground surface and cultivate evenly into the top 50mm of soil during April following Practical Completion.
- Q35/883A Fertilise each base of tree with 100g per m² of Enmag fertiliser (Q28/390) during April following Practical Completion.

PEST CONTROL

Q35/884A PEST CONTROL

- Report to CA any signs of insect, mammal and/or fungal attack, and apply approved pesticides immediately as directed.

SOFT LANDSCAPE MAINTENANCE SCHEDULE (12 months period for all planting and 24 months for all Specimen trees)

	January	February	March	April	May	June	July	August	September	October	November	December
Pest Control			As required									
Weed Control			Every 2 weeks									
Litter and Rubbish Collection	Every 3 weeks											
Fertilising			Trees/Shrubs & Grass (not meadow) single application per year as required following Practical Completion									
Watering	Weekly checks throughout the year. Water to capacity, as necessary throughout the year, following more than 2 weeks without significant rain.											
Amenity Grass Areas (all operations)			Every 10 days									
Meadow Grass Areas (all operations)			Cut 1x					Cut after flowering, re-cut as required				
Clip Hedges			Clip 1x				Clip 1x			Clip 1x		
Shrubs / Trees / Guys / Anchors	Check every 3 weeks and after high winds / frost-heave											
Remove Dead and Diseased Plant Material	As required											
Annual Defective Plant Replacement	Replanting as agreed with LA									Replanting as agreed with LA		
Mulch (top up to 50mm on all area)	12 months following Practical Completion											

All maintenance clauses apply.