



Soft Landscape Specification

Houghton Main TRRC
for:

Peel Environmental Limited

CRM.066.006.L.R.001



Contact Details:

Enzygo Ltd.
1st Floor, Samuel House,
5 Fox Valley Way,
Stocksbridge,
Sheffield,
S36 2AA

tel: 0114 321 5151
fax: 0114 321 5151
email: verena.meyer@enzygo.com
web: www.enzygo.com

Soft Landscape Specification

Project:	Houghton Main TRRC
For:	Peel Environmental Limited
Status:	REVISION A
Date:	January 2018
Author:	Verena Meyer Dipl.-Ing. CMLI MArborA – Senior Landscape Architect
Reviewer:	Steve Frazer BA [Hons] Dip LA CMLI – Principal Landscape Architect

Disclaimer:

This report has been produced by Enzygo Limited within the terms of the contract with the client and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

Enzygo Limited Registered in England No. 6525159

Registered Office Stag House Chipping Wotton-Under-Edge Gloucestershire GL12 7AD

Contents

Contents	3
1.0 Introduction	5
1.1 Background	5
2.0 General Information and Requirements	6
2.1 Soil Conditions.....	6
2.2 Climatic Conditions	6
2.3 Times of Year for Planting	6
2.4 Machines and Tools	6
2.5 General Watering.....	6
2.6 Water Restrictions.....	6
2.7 Tree Removal	7
2.8 Preparation, Planting and Mulching Materials	7
3.0 Specification of Plant Material	8
3.1 General.....	8
3.2 Trees and Plants	8
3.3 Tree Specification Definitions	8
3.4 Nursery Stock and Advanced Nursery Stock	9
3.5 Clear Stemmed Trees	9
3.6 Rootballed Trees	9
3.7 Bare Root Shrubs.....	9
3.8 Container Grown Shrubs and Perennials	10
3.9 Meadows and Wildflower Seed Mixes.....	10
4.0 Plant Material: Sourcing.....	11
4.1 Sourcing of Plant Material.....	11
4.2 Delivery	11
4.3 Unsuitable or Defective Plants.....	12
4.4 Substitute Plants	12
4.5 Plant Handling, Storage and Transport	12
4.6 Treatment of Tree Wounds.....	13
4.7 Protection of Existing Grass	13
4.8 Plant Containers	13
5.0 Preparation of Planting Areas	15
5.1 Weed Control	15
5.2 General Fertilizer (excl. meadow areas).....	15
5.3 Soil Ameliorant/ Conditioner (excl. meadow areas)	15
5.4 Soil Cultivation	16
5.5 Ground Preparation for Wildflower	16
6.0 Planting Operations	17
6.1 Planting Trees.....	17
6.2 Planting Shrubs and Perennials.....	21
6.3 Planting Meadow and Wildflower Seed Mixes	22

7.0	Approvals	24
7.1	Inspections	24
7.2	Pre-Practical Completion Maintenance	24
7.3	Shrub, Hedge and Tree Planting.....	25

1.0 Introduction

1.1 Background

Enzygo Limited has been commissioned by Peel Environmental Management Ltd. to prepare a 'Soft Landscape Specification' for Planting Proposals associated with the proposed erection of a "Renewable Energy Park comprising of a Timber Resource Recovery Centre and associated infrastructure" (Barnsley Metropolitan Borough Council ref. 2015/0137), proposed to the west of Houghton Main Colliery Roundabout, 7km east of Barnsley, South Yorkshire.

This document should be read in conjunction with Enzygo's Planting Strategy (drawing references CRM.066.006.L.D.004-005). This shows that the soft landscape for the site comprises native tree and shrub planting to supplement the existing areas of young native trees around the perimeter of the site and together with wetland meadow planting to enhance the biodiversity of the site.

All works should be undertaken in accordance with arboricultural recommendations with respect to existing trees to be retained. Refer to Arboriculturist's information for guidance on trees to be retained, tree protection measures and acceptable construction methods. If the following specification conflicts with arboricultural advice, please contact the Contract Administrator [CA] for further guidance.

2.0 General Information and Requirements

2.1 Soil Conditions

Cultivate and plant into moist friable soil that is not waterlogged.

Do not plant into frozen or snow covered soil without prior approval of the CA. The contractor shall provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

2.2 Climatic Conditions

Carry out the work while soil and weather conditions are suitable for the relevant planting operations. Do not plant during periods of frost or strong winds.

2.3 Times of Year for Planting

- Deciduous trees and shrubs: Late October to late March.
- Container grown plants: At any time if ground and weather conditions are favourable.
- Meadows and wildflower seed mixes: best sown in either Autumn before first frosts [September to October], or Spring after last frost [March to April].

2.4 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 impractical to use machinery.

2.5 General Watering

Ensure the full depth of the topsoil is evenly and thoroughly wetted.

Use a fine rose where appropriate to avoid damage or displacing plants or soil. Water as necessary to ensure establishment and continued thriving of planting. If planting takes place during prolonged hot and dry conditions, the contractor is to ensure the plants are well watered.

2.6 Water Restrictions

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

2.7 Tree Removal

Tree removal should be undertaken outside of bird nesting season, which is March to August inclusive, unless supervised by a suitably experienced ecologist.

2.8 Preparation, Planting and Mulching Materials

Preparation, planting and mulching materials must be free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

3.0 Specification of Plant Material

3.1 General

All species shall be true to name and character and shall be supplied as specified with all the trees' and shrubs' origin and provenance meanings given in the National Plant Specification. They shall have been grown and handled according to good horticultural practice and according to all current UK Government and EC regulations. The supplying nursery shall be expected to carry out thorough and rigorous production methods to ensure that the stock is of highest standards.

The conditions of all plants shall be materially undamaged, sturdy, healthy and vigorous and be of good shape, without elongated shoots. They shall be grown in a suitable environment and sufficiently hardened off prior to delivery to site. They shall be free from pests, diseases, discolouration, weeds and physiological disorders. Budded or grafted plants must be bottom worked.

The root system and condition must be uniform and well developed with fibrous root hairs typical of a healthy tree of the species, age and number of transplantations.

3.2 Trees and Plants

Obtain from approved sources with soil and climatic conditions similar to those prevailing on site and of local provenance, where possible. Adequately and carefully pack and protect against mechanical damage, extremes of temperature and drying out. The code for Plant Handling published by C.P.S.E. shall be strictly adhered to.

3.3 Tree Specification Definitions

Notes to planting schedules and Specification clauses.

- Code (European)

Twice Transplanted Tree = 2x

Three Times Transplanted Tree = 3x

Four Times Transplanted Tree = 4x

Rootballed in Hessian and encased in wire mesh =RB

- English Descriptions:

Standard 8-10cm, 2.5-3.00 m height

Clear stem to 1.75-2.00m = STD

Selected Standard 10-12cm, 3.00-3.50m height

Clear stem to 2.00 m = SS

Heavy Standard 12-14cm, 3.50-4.25 m height = HS
Clear stem to 2.00m

Extra Heavy Standard
14-16 cm, 4.25-6.00 height = EHS
16-18 cm, 4.25-6.25 height = EHS
Clear stem to 2.00m

3.4 Nursery Stock and Advanced Nursery Stock

All trees shall conform generally to BS 3936 Part 1 (Nursery Stock Trees) and BS 4043 (Advanced Nursery Stock Trees) and as further described in the plant schedules. All trees shall be strong growing, shall have reasonably straight, upright stem and accord with the dimensions given in the Schedule with evenly balanced and well developed crowns, with no main branch crossing the crown, and well developed fibrous root structure. All batches of single species shall be uniform in character. All stems shall be free from abrasions and stem girdling. Stems shall be straight and uniform.

3.5 Clear Stemmed Trees

All clear stem trees shall have a full and well developed crown with a uniform leaf coverage appropriate to their age and species. All shall bear a single upright straight central leader. Unless otherwise stated, they shall have a 1.8m clear stem height.

3.6 Rootballed Trees

The trees shall have a good well-formed root ball with dimensions according to the species and size of the tree. The diameter of the root ball is usually at least three times the size of the girth, measured at 1 metre above ground level. Rootballed trees shall be adequately supported by wire mesh and hessian, or other suitable material to prevent collapse of the rootball. The rootball shall be of sufficient size to contain the fibrous roots. Trees, which have a collapsed rootball or expose major parts of the root system will be rejected.

3.7 Bare Root Shrubs

All bare rooted subjects shall have a strong fibrous root structure. The root systems shall be well developed but compact with root spread proportional to the size of the tree with a reasonable proportion of fine fibrous rootlets. The roots shall not be torn or lacerated.

3.8 Container Grown Shrubs and Perennials

All plants will be true to name and character and shall be supplied container grown. They shall have been grown and handled according to good horticultural practice and to all current UK government and EC regulations.

All plants shall be well developed and bushy and shall have been grown in the same container for at least one full growing season prior to delivery.

All specimen shrubs shall have a balanced, well developed crown with a strong main stem and lateral branches or a minimum of 3 stems arising from the ground level, dependent on species. All specimen shrubs shall be well furnished to ground level, unless otherwise shown.

The root systems will adequately fill the capacity of the container to show clear evidence of the proper establishment of a healthy fibrous root system. Plants showing signs of being pot-bound or waterlogged will not be accepted.

All plants shall show a high degree of extension growth typical of the species or type and appropriate to the specified container size. The requirements given in the plant schedules constitute a guide to the required heights and number of breaks (in the lowest third of the plants). The plants shall be appropriately spaced to allow a full and uniform branch and leaf coverage to develop, evenly radiating around the pot.

The compost will hold sufficient reserves of nutrients to maintain the plant in a satisfactory condition for a reasonable period of time after leaving the Growers Nursery. The compost shall be free from any perennial weeds and have a reasonable moisture content. The compost shall not contain peat from UK sites of Special Interest or the equivalent from other countries. The compost shall contain the additive SusCon Green, mixed in accordance with the manufacturers' recommendations.

All plants shall be properly hardened off before delivery. All plants shall on delivery be free from diseases and pests and undamaged.

3.9 Meadows and Wildflower Seed Mixes

All seed mixes shall be true to name and/or supplier. Substitute mixes will need to be approved with landscape architect or contract administrator prior to planting, as particular seed mixes may contain different species or ratios of grass to wildflower seed, and may be unsuitable for the soil conditions.

Unless otherwise stated within the landscape proposals, all wildflower seed mixes shall be sown to the specified sowing rate per unit, or to supplier's recommendations.

4.0 Plant Material: Sourcing

4.1 Sourcing of Plant Material

Plants are to be obtained from an approved source confirmed in writing at the time of tender. The plant source/s are to have soil and climatic conditions similar to those prevailing at the site, and where possible of local provenance.

If for any reason plant material cannot be obtained as required above, the contractor shall furnish the CA with details of an alternative source of supply. The CA may request additional information as necessary.

Where plant material is unobtainable or known to be likely to be unobtainable at the time of ordering, alternatives maybe submitted with the tender, stating the price and how they differ from the specifications. Such substitutions may not be acceptable, and submission of further alternatives may be required. Obtain approval before making any substitution.

Where alternative species and/or sizes are offered, the contractor must clearly state in their tender, which specified plants/sizes they propose to change.

Single species from more than one source must be of the same clonal type and cultivator, and be similar in form, root structure and size.

4.2 Delivery

Labelling and Information

Plants shall be identified until planting with a label to each plant or group of the same species.

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 and address;
- Employer's name and project reference or order number; and
- Plant specification in accordance with scheduled National Plant Specification categories.

Redelivery Inspection

All plant stock is to be inspected at the nursery before supplying samples to site for approval. The contractor shall make full allowances for inspecting the stock with the CA, plus representative at the stated nursery locations and include for full travel costs. Failure to inspect the nursery stock will not relieve the contractor of his obligations under the specification.

The contractor shall satisfy himself on the quality, health, vigour and numbers of all the stock and its ability to meet the specification and the requirements of the Assignment Agreement (where appropriate).

At the time of the plant inspection visit, at the nursery of origin, the contractor shall make allowances for providing numbered security tags, for use of identifying the stock for the project and individual specimens. Following approval, plants are to be clearly identified with non-perishable labels as being reserved for use on this project.

Unloading on Delivery

The contractor shall supervise the unloading of the plants and shall inspect the plants at delivery.

4.3 Unsuitable or Defective Plants

Any materials, which in the opinion of the CA do not meet the requirements of the Specification, or are unsuitable or defective in any other way, will be rejected. The minimum sizes in the plant schedules will be strictly enforced.

4.4 Substitute Plants

The tender must be based on plants, which are available. Plants, which are unobtainable are to be clearly identified in the tender and alternatives are to be submitted for approval by the CA, stating species, size, form and price. These substitutes must be the equivalent or better quality than the species specified. Such substitutes may not be acceptable, and submission of further alternatives may be required. Obtain approval before making any substitution.

4.5 Plant Handling, Storage and Transport

The contractor shall comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0 and BS 8545:2014 Trees: From Nursery to Independence in the Landscape- Recommendations.

Plants/trees shall be handled with care and protected from frost. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.

Plants, which are not to be planted on the day of delivery to the site, are to be stored as follows or by other approved methods:

Bare root trees that are to be stored for subsequent planting shall be stored on site by laying them horizontally, resting the branches on straw bales and covering the root balls with soil and firming well in to prevent air pockets.

Container grown plant material shall be stored upright in a location on site agreed with the CA. Any plant material stored shall be protected from drying winds and watered regularly.

Watering should continue to keep all plant roots moist until planting can commence.

The contractor shall allow for all costs associated with undertaking correct storage of plant material. The contractor shall operate a method of “just in time” plant deliveries to minimise plant storage on site.

4.6 Treatment of Tree Wounds

The contractor shall ensure to keep all tree wounds as small as possible by cutting cleanly back to sound wood using sharp, clean tools and leaving branch collars. Do not cut flush with stem or trunk. Set cuts so that water will not collect on cut area. Do not apply fungicide/ Sealant unless instructed.

4.7 Protection of Existing Grass

In general all existing grass areas are to be protected from planting operations by using boards/ tarpaulins. Do not place excavated or imported materials directly on grass.

4.8 Plant Containers

Containerisation (Holding Over) of Trees

The programme for planting of larger trees is not known. The contractor is to provide alternative prices for supply all trees of 14-16 cm and above as containerised.

The contractor shall liaise with the supplier nursery and make all necessary arrangements for the supply and delivery of the approved and tagged tree stock to the contractors own containerisation nursery at the earliest possible time and certainly no later than 2 weeks after tagging.

Trees are to be containerised/held over by either of the methods specified below to ensure their availability with in the proposed site(s) programme of works and to guarantee the stock's survival and establishment on site.

The contractor shall state the preferred method of containerisation/holding over in the tender return.

Tress shall be containerised with spring rings. The contractor shall comply with the supplier's recommendations for installation and use, but shall generally assemble the containers with the cusp holes pointing outwards, to allow the root tips to be air pruned and appropriately sized for the rootball/tree being containerised and the period of holding over.

The following compost mix shall be used within the containers:

- 50% Fibrous moss peat or suitable alternative;
- 25% Medium bark;
- 12.5% Horticultural grit; and
- 12.5% Sterilised loam.

SR (Slow Release) base fertiliser 4.536 Kg/m³ consisting of:

- 5.3% Nitrogen by volume;
- 7.7% Phosphate by volume; and
- 10.0% Potash by volume.

pH value 6.5

The compost shall be maintained free from perennial weeds.

The contractor shall maintain and guarantee all trees at his own nursery including the installation of a drip irrigation system capable of applying 75-100 gallons per week depending on the prevailing weather conditions until the stock is ready for planting on the particular site. The contractor shall guarantee that the trees will have made sufficient root development for successful planting in line with each site's proposed programme of works.

All trees shall be placed on a gravel bed or similar, and securely held by overhead cables, which should be sheathed in rubber to prevent chaffing.

The containerisation area shall be covered in gravel or similar and shall be placed adjacent to a hard paved access road to enable the trees to be loaded onto suitable road transport irrespective of ground conditions.

5.0 Preparation of Planting Areas

5.1 Weed Control

The contractor shall prevent weeds from seeding and perennial weeds from becoming established, by hand weeding.

Where necessary the contractor shall apply a suitable herbicide (non-residual). Allow period of time to elapse as recommended by manufacturer before cultivation.

5.2 General Fertilizer (excl. meadow areas)

Manufacturer and reference:

Enmag
Scotts UK Professional
Paper Mill Lane
Bramford
Ipswich
Suffolk. IP8 4BZ
Tel: 01473 830492
Fax: 01473 830386

Or similar and approved

Apply evenly over the soil at 70g/m².

Peat: Do not use peat or products containing peat.

5.3 Soil Ameliorant/ Conditioner (excl. meadow areas)

Incorporate the following during cultivation of general planning areas:

Soil conditioner: Eco-mix compost, available from:

Eco-composting Ltd
Chapel Lane, Parley
Christchurch
Dorset. BH23 6BG
Tel: 01202 593601
Fax: 01202 581119

Spread over all planting areas at 50mm depth during cultivation, or:

Pro-Grow, available from:

Mendip Forestry Ltd
Quarry Bank
29a Berkley Road, Frome
Somerset. BA11 2ED
Tel: 01373.465767
Fax: 01373.453131

Spread over all planting areas at 50mm depth during cultivation.

Or similar approved peat free soil improver with soil association approval.

5.4 Soil Cultivation

Any compacted topsoil shall be broken up to full depth.

A few days before planting, but in suitably dry weather and ground conditions, cultivate top 300mm, using suitable plant to loosen, aerate and break up the soil into particles of 2-8mm.

Leave surface regular and even, with levels as required. Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50mm in any dimension, roots, tufts of grass and foreign matter.

5.5 Ground Preparation for Wildflower

Meadow & Wildflower

In open ground, control of 'weeds' can be achieved by repeated applications of herbicide (e.g. glyphosate) over the growing season and/or repeated cultivation to exhaust weeds (fallowing).

Unwanted vegetation can be cut back and removed from site or chopped up to be incorporated during cultivation.

Cultivate the soil to sufficient depth to bury remaining trash and to alleviate compaction, then rake or harrow and roll to produce a fairly fine, firm surface.

The finished seedbed should be firm enough to walk on without leaving impressions. As the area will be mown at a later stage the finished surface should be free of obstructions such as large stones or bricks, and free of deep ruts or ridges.

The "stale seedbed technique" can work well for annual weeds whose seeds will remain in the soil after clearance. This method involves preparing a seedbed then delaying sowing to allow a flush of weed seed germination from the surface layers. This flush of weeds is then killed, by spraying or shallow cultivation, before sowing your seed mixture onto the cleaned "stale" seedbed - the surface of which now has a reduced weed seed burden.

Soil cultivation around established trees and hedges can be very damaging to tree and shrub roots - only surface treatments are safe here.

For soils that are known to be of heavy clay, spring sowing is advisable and more invasive methods of ground preparation may be used to create a finer tilth.

6.0 Planting Operations

6.1 Planting Trees

Generally

The contractor shall make full allowance for provision of all cranes, lifting tackle, tree collars etc. required for lifting trees into position having confirmed the weight and dimensions of all the trees reserved with the nursery supplier(s). Any use of cranes shall be coordinated with the CA, agree haul routes, types of tracks on vehicles etc. prior to commencing tree deliveries. Make good, at no extra cost to the contract, any damage incurred to finished kerbs, hard standing etc. during planting.

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 and when removing crates and containers.

Any damaged trees shall be taken off site and replaced at no additional cost. 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 sticky condition. Wherever possible, planting should take place when the weather is dull and the ground is moist and workable.

All plants should be watered thoroughly before planting.

Tree Pits

Mark the centre of each pit with a suitable peg, e.g. Dahlia stake, indicating the species and size on the peg. No tree pits shall be dug until final tree positions have been pegged out and approved by the CA.

Excavate the base of the pit with a slightly raised centre. Retain topsoil for re-use. In sloping ground, maintain horizontal base and vertical sides with no less than minimum specified depth throughout.

Pits shall be prepared just before the trees are planted. On no account shall tree pits be left unfilled. Pits once excavated shall be backfilled with topsoil and only re-excavated immediately prior to planting to accommodate the rootball spread of the tree.

For rootballed, bare rooted, containerised and container grown, unless otherwise instructed:

18-20cm & 16-18cm	200mm square x 900mm deep
14-16cm&12-14cm	900mm square x 600mm deep
Standard (include multi stemmed)	900mm square x 600mm deep

Where necessary increase the above dimensions to ensure that pits are wide enough to accommodate roots when fully spread and an additional 200mm deep to accommodate a 200mm layer of drainage substrate. On no account must tree roots be trimmed or altered in order to be accommodated in any excavation. Any excavated material, which is not topsoil shall be removed from site.

Break up bottoms of pits to a depth of 150mm and scarify sides. The base of the pit should fall towards the drainage trench.

Tree Pit Drainage

Increase depth of excavation from specified size to allow for aggregate layer, sloping base of pit towards trench. Width of trench 300mm, depth 200mm min.

Backfill trench with min. 200mm deep clean gravel or broken stone, with no fines, graded 8-10mm blinded with coarse sand or grit to prevent ingress of fines.

Lay perforated pipes, 80mm diameter within drainage trench and connect to surface water drainage connection pipe laid by others.

Test for free draining of completed pits before planting.

Staking Generally

Stakes: Softwood milled round, straight and free from projections and large or edge knots with pointed lower end.

Nails: To BS 1202: part 1, galvanised, minimum 25mm long and with 10mm diameter heads.

Minimum stake sizes:

Tree size	Overall length of stake / Diameter	
Nursery Stock	500mm	75mm
Advanced Nursery Stock	1500mm	100mm

Where feathered stock is planted in extremely windy and exposed sites, the length of the stake should be increased to 1500mm.

Short Single Staking

For all Feathered and Nursery Stock (up to 12-14cm girth). Position stake close to tree on windward side and drive vertically at least 300mm into bottom of pit before planting. Consolidate material around stake during backfilling. Cut stake to approximately 600mm above ground level. Secure tree firmly but not rigidly to the stake with:

Belts, Pads and Spacers available from:

J Toms Ltd.
7 Marley Farm
Headcorn Road, Smarden
Ashford
Kent. TN27 8PJ
Tel: 01233.770066
Fax: 01233.770055

Or similar approved.

Feathered and Standard Nursery Stock and Heavy Standards: Chunky Pad (ref.04) and Special Nylon Reinforced 25mm Rubber belt (ref.B1). Use one nail for fixing and within 25mm of top of stake.

Short Double Staking

For all Advanced Nursery stock (14-16 & 16-18 cm girth). Drive stakes vertically at least 300mm into the bottom of the pit on either side of the tree position before planting. Consolidate material round stakes during backfilling. Cut stakes to approximately 600mm above ground level.

Secure tree firmly but not rigidly with, Belts and spacers from: J Toms Ltd. (as above, **or similar approved**)

Special Nylon Reinforced 37.5mm Rubber belt (ref.L5) and Rubber Sleeves (RS), cut to length, rubber belt looped around tree stem, through 2 no. rubber spacer sleeves cut to correct length to each stake use one nail fixing per stake.

Backfilling Material

The following backfilling is for all pits from whips to semi-mature.

The CA reserves the right to inspect all tree pits prior to the contractor backfilling with the specified material/ameliorants.

Top 400mm of backfill to tree pits only:

70% topsoil;
30% tree and shrub planting compost; and
100g/m³ Enmag fertiliser.

Tree and Shrub planting compost: Peat free

Backfill pits with approved subsoil up to 400mm from surface and backfill remaining depth with above topsoil backfill mix. The pits shall be filled in 150mm layers of subsoil finishing with topsoil and ameliorants. Each layer shall be consolidated in the gap between the rootball and the pit. Any subsequent settlement in tree pits shall be allowed for or made good by the contractor at his own expense as a defect during the Maintenance and Defects Liability Period.

Any excavated material, which does not form part of the backfill shall be removed from site.

Tree Protection

All trees should be supplied with spiral shelters tall enough to provide necessary browsing protection. Shelters to be supported by bamboo cane attached with nylon tie.

After Planting

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

Mulching Trees

Material: Bark Nuggets From: Melcourt Industries Ltd

Boldridge Brake
Long Newton
Tetbury
Glocs.
GL8 8RT
Tel: 01666 502711
Fax: 01666 504398

Or similar approved.

For all other areas spent mushroom compost 50 mm min. depth.

Bark mulch shall be from an approved source and a representative sample shall be supplied for approval prior to delivery.

The contractor shall obtain approval from the CA and ensure that all planting areas are weed free and have received residual herbicide, if instructed, before commencing mulching.

Clear all weeds, water soil thoroughly and mulch the whole surface of planting beds with mulch material at a finished depth of 50mm (1cu m of material per 20 m²)/75mm (1m³ of material per 13.3 m²). Allow for at least 5% settlement after 30 days.

6.2 **Planting Shrubs and Perennials**

All plants should be watered thoroughly before planting.

Bare rooted plants should be notch planted creating a double notch (L- or T-notch) to allow the roots to be evenly distributed.

Pits shall be of a sufficient size to take rootballs, without breaking them, or roots without bending or cramping. Roots shall not penetrate into subsoil when planted.

Plants are to be positioned in the locations and numbers shown on the drawings and placed to achieve even spacing and proper matching of shapes, particularly related to the original growing positions in the nursery. Plants shall be placed in positions showing their best side to the front. Where two or more plant species are shown in one space, they should be evenly mixed together to achieve the required effect unless otherwise noted on the drawings. Do not plant in straight lines unless indicated on the respective scheme drawings.

Plants shall be planted at the same depth as their nursery mark allowing for settling of soil after planting. They shall be completely vertical and well firmed in after planting. All plants shall be planted so as to adopt a truly vertical position.

Care shall be taken to avoid breaking up the rootball of pot grown shrubs. Plants that have full fibrous rootballs shall have their roots gently eased out.

The topsoil shall be lightly consolidated and firmed around the root collar to eliminate all air pockets.

Shrub protection

All shrubs to be provided with rabbit protection (minimum 800mm height) and staked.

After Planting

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

Mulching Planting Beds

Material: Ornamental Bark Mulch, from:

Melcourt Industries Ltd
Boldridge Brake
Long Newton
Tetbury
Glocs.
GL8 8RT
Tel: 01666 502711
Fax: 01666 504398

Or similar approved

Bark mulch shall be from an approved source and a representative sample shall be supplied for approval prior to delivery.

The contractor shall obtain approval from the CA and ensure that all planting areas are weed free and have received residual herbicide, if instructed, before commencing mulching.

Clear all weeds, water soil thoroughly and mulch the whole surface of planting beds with bark at a finished depth of 50mm (1 m³ of material per 20 m²) / 75mm (1 m³ of material per 13.3 m²). Allow for at least 5% settlement after 30 days.

If a 'similar approved' product is proposed, mulch shall consist of predominantly matured British pine bark with an even particle size distribution between 5-35mm, containing no dust or fine material. The mulch shall contain less than 5% wood. The mulch shall be pest, disease and weed free and be free of Methyl Bromide contamination or other additives with available Manganese not exceeding 35ppm. The product shall have been tested in accordance with the requirements of BS4790:1987 for fire resistance.

6.3 Planting Meadow and Wildflower Seed Mixes

Timing

Seeds need both warmth and moisture to grow and may be sown at any time of year when these conditions are met.

August-September and March-April usually produce the best conditions for sowing outside in most parts of the UK. May to July sowings also work well in wetter western regions. Late autumn sowings should be avoided on sites prone to water-logging in winter and late spring and summer sowings should be avoided on droughty sites. Sowings into existing grass work best in autumn.

Some plants need to be sown at particular times to fit in with their life cycles or biology. Cornfield Annuals need to be sown in the autumn or before May in the following spring to get a flowering display. Yellow rattle must be sown in autumn. Refer to seed mix.

Preparation

Seed mixes should conform to be to the stated mix or product as per the landscape proposals.

Ground should be prepared in accordance with 'Preparation of Planting Areas' section of Soft Landscape Specification. This standard must be achieved before sowing.

Sowing

Unless otherwise stated sowing should follow the rates specified by the manufacturer of product. Sowing rates excessive of the specified amount is not advisable as this may lead to overcrowding or imbalances in establishing a wildflower sward.

All seed is to be surface sown and to be broadcast by hand or appropriate machinery for larger areas.

Do not incorporate or cover seed with soil, instead 'firm-in' to surface by treading or hand rolling.

Sowings may be slow to establish in the first year after sowing for perennial seed mixes. Additional sowings may be required to produce desirable effect. Further sowings may be required in subsequent years, if sward has become depauperate or dominated by noxious weed species.

All biomass should be removed after cutting to decrease soil fertility.

7.0 Approvals

7.1 Inspections

Notwithstanding the conditions of this section the contractor must give 48-hours' notice to the CA of his intention to begin the following operations:

- Setting out;
- Application of herbicide;
- Application of fertiliser;
- Delivery of plants;
- Planting shrubs;
- Planting of trees; and
- Watering.

7.2 Pre-Practical Completion Maintenance

Generally

The Contractor shall make allowances for maintaining the works installed for the period prior to Practical Completion.

Contractor is responsible for protecting seeded and planted areas. If fencing is the chosen form of protection use chestnut pale fencing. Maintain fencing until grass/planting is well established then remove and reinstate ground. Make good any damage to grass until area is accepted. The fencing will remain the property of the contractor.

The works shall include, but not be limited to, the following operations:

Watering

During establishment ensure that sufficient water is applied to all planted and meadow areas to maintain healthy growth. Carry out watering of shrub areas using a fine rose or sprinkler until full depth of topsoil is saturated to field capacity.

Pests and Diseases

The contractor shall maintain the works free from any pests and diseases and apply approved chemicals in accordance with manufacturer's recommendations.

Cleanliness

The contractor shall remove soil from all hard surfaces and leave the works in a clean, tidy condition at Practical Completion. All hard surfaces are to remain free from any litter and grass clippings, mulch, etc..

Vandalism and Theft

Prior to the issue of the Certificate of Practical Completion the contractor shall be responsible for all losses to the works resulting from vandalism and theft or a lack of protection.

Replacements

Reinstate to original condition and within a reasonable period of time (according to season), any damage or disturbance occurring during the period up to practical completion, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings. This includes replacing topsoil to the correct levels if subsidence or settlement occurs.

7.3 Shrub, Hedge and Tree Planting

Weeding

Weed soft areas by hand or by chemical means, as appropriate to the ground and plant establishment conditions.

All rubbish, roots, weed and stones exceeding 25mm shall be collected and removed on a regular basis during the pre-practical completion maintenance visits.

Replacements

The contractor shall replace with approved equivalent trees/shrubs/plants, all dead, dying, defective plants, vandalised and stolen material in accordance with the Specification and to the approval of the CA, before Practical Completion can be certified.

If, for unavoidable seasonal or climatic reasons, it is not possible/practicable to replace plants before Practical Completion, the contractor must agree to undertake replacements as soon as possible during the next suitable planting season unless instructed otherwise.

Sunken Areas

The contractor shall reinstate sunken areas of planting beds and tree pits to the specified levels.



Enzygo specialise in a wide range of technical services:

Property and Sites

Waste and Mineral Planning

Flooding, Drainage and Hydrology

Landscape Architecture

Arboriculture

Permitting and Regulation

Waste Technologies and Renewables

Waste Contract Procurement

Noise and Vibration

Ecology Services

Contaminated Land and Geotechnical

Traffic and Transportation

Planning Services

BRISTOL OFFICE

The Byre
Woodend Lane
Cromhall
Gloucestershire GL12 8AA
Tel: 01454 269 237

SHEFFIELD OFFICE

Samuel House
5 Fox Valley Way
Stocksbridge
Sheffield S36 2AA
Tel: 0114 321 5151

MANCHESTER OFFICE

First Floor
3 Hardman Square
Spinningfields
Manchester M3 3EB
Tel: 0161 413 6444

Please visit our website for more information.

enzygo.com