

Landscape specification

Ground preparation: Tree protection fencing shall be erected as noted within an Arboricultural Method Statement and Tree Protection Plan. The fence is to be maintained for the duration of the works. Protection of existing trees against damage to be in accordance with the BS 5837:2012 - Trees in relation to design, demolition and construction - Recommendations. Protective fence to be approved by the LPA. Any excavations shall be in accordance with B.S. 8000 part 1:1989.

Imported soil: Soils may need to be imported to make up for any deficiency of soil on site. If imported soil is required to complete the soft landscape scheme then it must be suitable for their specific use.

Soil placement should only take place where the receiving substrate is fit for purpose. Where large container or root-balled tree planting is proposed, topsoil should not be replaced onto compacted, poorly drained sub-soil, or any soil which has been compacted that will impede root growth.

Subsoil: Where required, supply approved imported subsoil to B.S. 8601:2013 Specification for subsoil and requirements for use - Multipurpose subsoil, to make up any deficiency in on-site subsoil. Spread and level to a depth as noted below (see soil profiles). Imported subsoil to be broken-up where there has been compaction.

For in-situ subsoil, it shall not be disturbed other than where there has been compaction.

Topsoil: Where required, supply approved imported topsoil to B.S. 3882:2015 Specification for topsoil - Multipurpose topsoil, to make up for any deficiency in on-site topsoil. Spread and level to a depth as noted below (see soil profiles).

Certification of soil shall be in accordance with BS 8601/3882. The sand contents should consist of medium to fine grades at approximately equal quantity, including a pH of 6.5-7.5.

Soil profiles: Soil profiles outside of retained, in-situ soil, should comprise:

- 300mm topsoil over 600mm subsoil for trees planted within shrubs or where trees are planted in grass areas.
- 300mm topsoil over 300mm subsoil for shrub planting areas (with no trees) and the adjacent grass areas, and 150mm topsoil over 150mm subsoil for grass areas only.

Excavation: Any excavations in order to win soil for re-use as part of landscaping must be undertaken in accordance with BS 3882:2015, BS 8601:2013 and the 2009 DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

Trees: excavate a few centimeters shallower than root-ball and twice its width with sloping, scarified sides. Root-balls of trees shall be set on a 150mm depth of

horticultural grade sharp sand. Semi-Mature trees shall be set on a 400-450mm depth of horticultural grade sharp sand. **Shrubs:** excavate 300 x 300 x 300mm depth.

For trees in rain gardens, components will need to be confirmed by a drainage engineer.

All non-perishable root-ball wrappings and cages to be removed except where root-ball collapse is a concern, in which case cut and peel back to one third root-ball height. Perishable wrappings and cages to be retained only where root-ball soils lack cohesion due to their textural qualities, but are then cut and peeled back to one-third root-ball height once the tree is in position, with the cut and peeled back parts removed. Perishable wrappings and cage constitute single thickness, untreated hessian and non-galvanized, narrow gauge wire. Non-perishable include double wrapped or treated hessian and thick, galvanized wire.

Backfilling: **Trees:** Backfill to reinstate 300mm over 600mm profile and do not add compost or fertiliser unless soil analysis demonstrates the need. If compost is applied it should be worked in generally to the top 150mm, not back-filled into tree pits. **Shrubs:** Backfill to reinstate soil profiles provided above and do not add compost or fertiliser unless soil analysis demonstrates the need.

Cultivation: Do not cultivate tree and shrub planting soils, only cultivate prior to planting if the soil is compacted (for example due due site/construction activities). For grass seeding areas, cultivate topsoil to a loose friable tilth suitable for grass seeding. Collect and remove from site all stones, builders' rubble and other deleterious material over 50mm in any dimension.

Amenity grass: Grass areas to be sown at a rate of 4g/m² with a suitable grass seed mix such Emorsgate Seeds EL1 Flowering Lawn Mixture.

Aftercare
First year management

The wild flower and grass species in this mix are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season. This annual weed growth is easily controlled by repeated mowing.

Mow newly sown flowering lawns regularly (every 7 -10 days during growing season) throughout the first year of establishment. Cut to a height of 40-60mm, removing cuttings if dense. This will gradually develop a good sward structure, help maintain balance between faster growing grasses and slower developing wild flowers, and control annual weeds.

Dig out any residual perennial weeds such as docks.

Management once established

Mow regularly as a lawn but not too short (25-40mm).

To permit flowering, mowing can be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Mowing may be suspended earlier in the year to allow cowlslips to flower. Heavy quantities of cuttings should be collected and removed from site.

ref: <https://wildseed.co.uk/mixtures/view/56>

Planting areas: Plant specification to be in accordance with the HTA National Plant Specification. Tree planting to be in accordance with BS 8545:2014 - Trees from nursery to independence in the landscape recommendations.

Tree planting: No tree to be planted that does not conform in full with **Table 1, p.21, BS 8545:2014**, to be established via nursery inspections prior to and on delivery of trees. The positioning of proposed trees are to avoid underground services.

Tree anchoring: Rootball fixing strap system to be provided by Platipus to secure the trees.

Supplier: Platipus. Product: Tree Anchoring with Strap. Product Code: RF1s/RF2s (depending on tree size). Ref: www.platipus-anchors.com/applications/tree-and-irrigation/rootball-fixing-system---strap/

Note: Above ground stake supports for trees shall only be used where ground anchoring methods prove ineffective, but shall not be used to support trees with defective root-balls. Staking shall comprise x3 untreated wooden stakes set with two to the SW side and attached low (never more than one-third tree height) using flexible ties such as hessian nature-ties, arbor-tie or rubber straps. Ties shall allow for flexure without abrasion of the stem and all stakes and ties shall be removed before the third growing season.

Root barriers: Root barriers shall be installed (to be provided by GreenBlue Urban. Product: ReRoot 2000) as required and at a suitable depth to protect buried services. It shall be installed approximately 250mm parallel to the buried services and within 3m of the proposed trees. Proposed trees to be offset a minimum of 1m from the position of the buried services.

Bark mulch: Provide and spread evenly over all planting areas an organic graded bark flakes or similar approved bark mulch to a depth of 50mm. For trees, and in particular those planted in grass, apply a 50mm depth of much to give

2m² mulching circles, but tapered to 25mm depth over rootballs - mulch to be tapered so that the root flare of tree is clearly visible. Ensure that there is a coverage area of 1200mm radius for trees, measured from the tree stem.

Mulching shall be free from toxins, pathogens and other extraneous substances harmful to plant, animal or human life. Ensure that all weeds have been cleared and that the soil have been watered thoroughly prior to mulching.

Maintenance: All landscape areas to be maintained in accordance with B.S. 7370 Part 3:1991 and Part 4:1993; including weed control, and adjustment to tree stakes and ties. Refer to the below.

General notes: Substitutions, if made, should be similar in size, form and water demand. Plants shall be arranged to avoid straight lines and geometric patterns.

Landscape programme

A qualified Landscape Architect shall be appointed to inspect implementation of the landscape scheme at key stages/milestones, such as during the import and spreading of soils and planting of trees and shrubs, to ensure that the soft landscape areas are in accordance with the approved drawings and specifications. The Landscape Architect shall report back to the LPA and provide photographs as necessary.

Tree protection fencing shall be erected as noted within an Arboricultural Method Statement and Tree Protection Plan. The fence is to be maintained for the duration of the works. Protection of existing trees against damage to be in accordance with the BS 5837:2012 - Trees in relation to design, demolition and construction - Recommendations. Protective fence to be approved by the LPA. Site clearance shall be undertaken prior to any topsoil stripping. Stripping topsoil shall be undertaken before the beginning of general excavations or filling. Strip topsoil from areas where there will be regrading, buildings, pavings/ roads and other areas shown on the drawings.

Hard landscape works shall commence as soon as the building work is complete.

Import of soils shall be provided as necessary to make up any deficiency of topsoil on site and to complete the work. Tree planting shall be implemented during the planting season, November - March, for Root Balled trees, and any time of the year for container grown trees. Shrub planting (container grown species) shall be implemented as soon as practicable after construction of the buildings and hard landscape areas.

Grass seeding for amenity grass to be undertaken as soon as practicable after the building works, hard landscape and shrub planting have been completed, and to make good areas due to construction activities. Seeding of species rich grass areas to be sown either in April, or in October, and in accordance with manufacturer's recommendations.

Landscape maintenance

Soft landscape areas to be maintained in accordance with **B.S. 7370 Part 3:1991** and Part 4:1993. The maintenance of trees should be in accordance with **BS 3998:2010** and **BS 8545:2014**. Maintenance operations to successfully establish plants shall be carried out for the first 5 years after planting.

Maintenance operations for successful plant establishment shall include watering; weed control; fertiliser application; pest and disease control; pruning; and litter picking. Watering for trees should follow an irrigation plan in accordance with BS 8545:2014 and must be in anticipation of drought.

Tree pruning should be in the winter months or summer (July-August). Cherries must be pruned only in the summer months after flowering.

The replacement of failed trees should occur once reasons for failure have been identified and amendments to the specification are made as necessary. Shrubs which die, are removed or become seriously damaged shall be replaced in the next planting season with others of similar size and species, to be agreed in writing by the Local Planning Authority. For all new landscape areas, the following maintenance programme shall be undertaken:

Inspections: January - December. Replace dead plants when necessary.
Watering: When necessary in accordance with an irrigation plan.
Pest and disease control: January.
Litter removal: January - December
Weed control: February - May; July; and September.
Prune: Winter months or summer.
Fork over planting beds: March.
Cut grass and trim edges: March - October.
Apply fertiliser: April.
Lightly fork over planting beds: September.
Rake / scarify grass September.
Mulch: Mid to late spring.

Watering: Water trees in accordance with an irrigation plan as per BS 8545:2014. Watering shrubs shall be carried out to maintain vigorous plant growth. Water shall soak into the ground; it is not sufficient to dampen the surface. Water must be applied slowly to avoid damage to plants.
Weed control: Hand weed to remove all weeds and their roots using a hoe, trowel or fork. Apply a herbicide to kill re-growth when required.
Fertiliser: Applications of fertiliser to be carried out early in the growing season. Ensure correct fertiliser application. Inspect once a month and after very heavy winds. Adjust ties if necessary to conform to stem growth or to prevent chafing.
Pruning: At the appropriate season for the species, pruning to be carried out to remove all damaged diseased or dead wood. Prune shrubs to ensue the plant is kept well balanced and in good shape. For trees, pruning shall be in accordance with **BS 3998:2010**.
Pest and disease control: To be carried out if necessary and in accordance with best practice.
Litter removal: Collect and remove all extraneous rubbish.
Fork over planting beds: Prick up trodden or compacted soil surfaces to aerate the soil without damaging the plants.

Mulching: Mulching to be topped up annually over the duration of the agreed maintenance period. At the end of the maintenance period, undertake a final mulch. Ensure that the soil is thoroughly moistened prior to re-mulching, applying water where necessary. Planting beds and trees: re-mulch to a minimum depth of 50 mm.
Mowing: Amenity grass areas shall be managed to a height of 40mm. Species rich grass areas to be mowed as advised by the supplier.
Raking/Scarifying: Relieve thatched conditions and remove dead grass in the autumn over all grassed areas.
Spiking (Aeration): Aerate to increase water, nutrient and oxygen movement into the soil.
General: If grass surface is disturbed by over use, restore by firming or lifting with a fork.
Any newly planted trees, plants or hedgerows, which within a period of 5 years from the completion of the development die, are removed, become seriously damaged or diseased, or in the opinion of the Local Planning Authority otherwise defective, shall be replaced. Replacement planting shall take place during the first available planting season

General

D20 Excavating and filling

168 Site Clearance
1 Timing: Before topsoil stripping, if any.

2 General: Clear site of rubbish, debris and vegetation. Do not compact topsoil
3 Treatment: Apply a suitable non-residual herbicide to areas to receive planting

220 Stripping topsoil
1 General: Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, buildings, pavings/ roads and other areas shown on drawings.

2 Depth:
2.1 Remove as indicated within any site investigation report
2.2 Give notice where the depth of topsoil is difficult to determine

3 Handling: Handle topsoil for reuse or sale in accordance with clause 225.

4 Around trees: Do not remove topsoil from below the spread of trees to be retained.
5 Site storage: Keep separate from excavated sub-soil

221 Treating topsoil
1 Treatment: Apply a suitable translocated nonresidual herbicide

2 Timing: Not less than two weeks before excavating topsoil.

225 Handling topsoil
1 Standard: to BS 3882.

2 Aggressive weeds:
2.1 Species: Notify the presence of species included in the Weeds Act, section 2, or the appropriate Wildlife and Countryside Act for the relevant jurisdiction. Obtain instructions before moving topsoil.

2.2 Give notice:

3 Contamination:
3.1 Do not mix topsoil with: Subsoil, stone, hardcore, rubbish or material from demolition work.
3.2 Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.
3.3 Oil, fuel, cement or other substances harmful to plant growth.
3.4 Other classifications of topsoil.

4 multiple handling: Keep to a minimum. Use topsoil immediately after stripping.

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420 Topsoil storage heaps
1 Location: Where space allows.

2 Standard: To BS 3882.

3 Height: 1m maximum.

4 Protection:
4.1 Do not place any other material on top of storage heaps.
4.2 Do not allow construction plant to pass over storage heaps.
4.3 Prevent compaction and contamination.

510 Hazardous, aggressive or unstable material
1 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.
1.1 With excessive moisture content, slurry, mud or from marshes or bogs.
1.2
1.3
1.4
1.5
1.6
1.7 Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
1.8 Unacceptable, class U2 as defined in the 'Specification for highway works', clause 601.

Q28 Topsoil and soil ameliorant

300 Preparation materials generally
1 Purity: Free of pests and disease

2 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.

3: 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.

4: Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
5: Objectionable odour: None.

6: Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

Q31 External planting

112 Site clearance generally
1 General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
2 Stones: Remove those with any dimension exceeding 50mm.

3: Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
4: Vegetation: Clear scrub to ground level by flail mowing and remove arisings
5: Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.

118 Soil conditions
1 Soil for cultivating and planting: As per the specification above.

2 Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

120 Climatic conditions
1 General: Carry out the work while soil and weather conditions are suitable.

1.1 Strong winds: Do not plant.

200 plants/ Trees - general
1 Condition: Materially undamaged, sturdy, healthy and vigorous.
2 Appearance: Of good shape and without elongated shoots.
3 Hardiness: Grown in a suitable environment and hardened off.
4 Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
5 Budded or grafted plants: Bottom worked.
6 Root system and condition: Balanced with branch system
6.1 Standard: The National Plant Specification.
7 Species: True to name.
8 Origin/Provenance: Contractor's choice.
9 Definition: Origin and Provenance have the meaning given in the National Plant Specification.

265 Plant handling, storage transport and planting
1 Standard: To CPSE 'Handling and establishing landscape plants'.

2 Frost: Protect plants from frost.

3 handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
Black polyethylene bags.

4 plant packaging:

5 Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped

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



Walnut Way, Merthyr Tydfil
Specification
LA.3

