

FLC Motors, High St, Yiewsley, Middlesex, UB7 8AA

LANDSCAPE SPECIFICATIONS AND MAINTENANCE

For Landscape Proposals

Elizabeth Greenwood CMLI, F Arbor A.
ms.ejgreenwood@gmail.com



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A: Details and Materials

A1: Hard Landscaping Details



Above: Perimeta bespoke Corten Steel planters: <https://www.kinley.co.uk/>



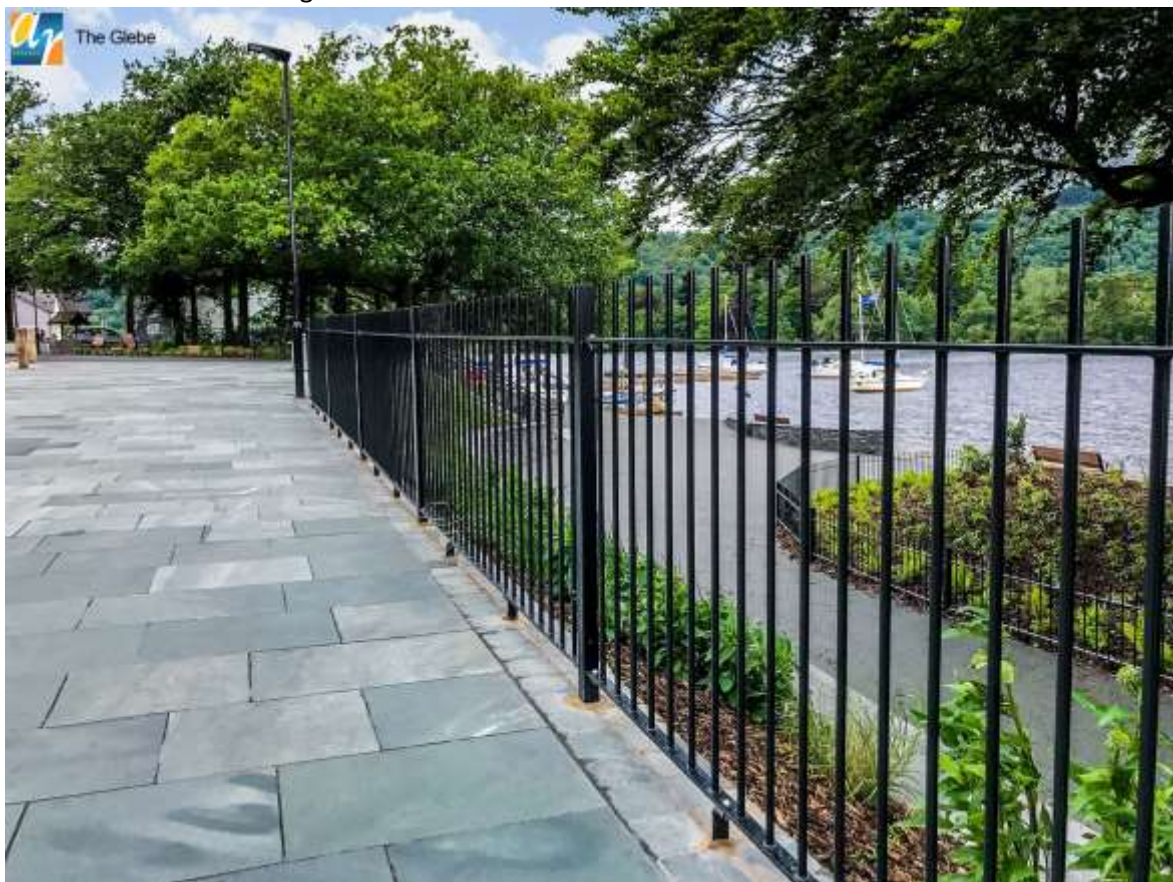
Above: vertical bar metal fencing: <https://www.alpharail.co.uk/metalwork-products/metal-railings/standard-vertical-bar-railings/>



Above: Standard vertical bar railing with brick posts.

<https://www.alpharail.co.uk/metalwork-products/metal-railings/standard-vertical-bar-railings/>

Below: Vertical bar railing un-mounted.





Above: Bow topped railing for play area - <https://www.orourkeplayscapes.co.uk/bow-top-fencing/>



Above: Playdale Merrymeet Plus



Above: Playdale Team swing with wet pour surfacing



Left: Marshalls Versuro paving. <https://www.marshalls.co.uk/gardens-and-driveways/product/fairstone-sawn-sandstone-garden-paving>

Right: Resin-bonded gravel
<https://www.marshalls.co.uk/commercial/product/stonespar-vasanta-blend>



Above: Linares picnic bench set: <https://www.externalworksindex.co.uk/entry/128982/Bailey-Streetscene/Linares-Picnic-Table/>

A2: Soft Landscaping

Trees and shrubs:



Left: Prunus 'Amanogawa'; **Right:** P. 'Sunset Boulevard'



Left: Acer campestre; **Right:** Sorbus 'Sheerwater Seedling'



Left: Carpinus betulus hedge; **Right:** Photinia fraseri 'Red Robin' Hedge



Left: Mixed native hedge; **Centre:** Escallonia 'Donard Seedling' hedge; **Right:** Mixed Native Hedge



Left: Buddleja 'Black Knight'; **Right:** Buddleja 'Peace'



Left: Phormium tenax; **Centre:** Sambucus 'Eva'; **Right:** Viburnum opulus 'Roseum'

Tree species available from: <https://www.ornamental-trees.co.uk/>

Hedging: <https://www.hedgesdirect.co.uk/>

Mixed planting available from: <https://www.crocus.co.uk/>

Alternatives if species unavailable from above sources:

<https://www.jacksonsnurseries.co.uk/>

<https://dorsetperennials.co.uk/>

<https://www.chewvalleytrees.co.uk/>

<https://www.burncoose.co.uk/>

B: Landscape Specification

B1: General Planting Specifications

B1.1 General

All works are to comply with the relevant British and European Standards. All planting stock shall comply with the requirements of the British Standards 3936, and shall be healthy, strong with a good shape and strong root system in accordance with the National Plant Specification. The native plants are to be of local provenance and be well labelled. Trees and shrubs are to be lifted only between mid-October and mid-March and to be handled and transported in accordance with relevant codes of practice, with roots kept moist and wrapped to protect them from adverse weather conditions. The supply and planting of trees to be in accordance BS 8545:2014. 'Trees: from nursery to independence in the landscape'

All planting operations shall be carried out in accordance with British Standards 4428.

B1.2 Setting out

The Contractor shall be responsible for the setting out of all the work. The Client's representative will arrange for the checking of the setting out where required. The Contractor shall provide all labour, materials, instruments, etc. for the use of the Client's representative in checking. Notwithstanding this check, the Contractor will be responsible for any error in the setting out and for the cost of any works required to make good the error.

Before planting is begun the areas of planting shall be clearly marked out and at all stages of the construction adequate line and level pegs shall be provided so that the construction will confirm in all respect to the drawings and may be checked by the Client's representative. Pegs should be substantial enough to withstand vandalism where this may be a problem.

B1.3 Unsuitable Weather

- (i) Excavation, filling, cultivation, planting and all other works shall be suspended in wet weather, frost or when ground conditions are unsuitable where determined by the Client's representative and the Contractor shall allow in his prices for such eventualities.
- (ii) Any work affected by unsuitable weather shall be cleared away or made good if instructed to allow the continuation of the works.

B1.4 Implementation

The boundary will be planted during the first planting season following erection of the building- Container grown plants can be planted from mid-September onwards, depending on climatic conditions. All bare root plants are to be planted between mid-October until mid-March.

B2: Excavations

B2.1 Agreement of surface levels

Before commencing soft landscape works the contractor will agree the final surface levels in accordance with the approved plan 816.18.2 and 816.18.3 as revised

B2.2 Ripping

Subsoil shall be broken or ripped by a suitable machine to a depth of 150 mm (or in the case of small inaccessible areas by hand fork) prior to topsoil spreading. Under no circumstances shall the Contractor carry out these operations when the soil is in a saturated or “sticky” condition. Any arisings from this operation are to be removed from the site. The Contractor shall seek the approval of the Client’s representative for all ripped areas of subsoil prior to placement of topsoil.

B2.3 Re-use of Excavated Materials

Genuine top spit vegetable soil, free from chemical or other pollution, pests, obnoxious weed roots and rubbish, when approved by the Client’s representative as suitable, is to be set aside for subsequent re-use.

B2.4 Placing of Soil Forming Material

- (i) The Contractor shall prepare a detailed statement describing the method to be used for placing soil which is to minimise compaction, and to be approved by the Client’s representative.
- (ii) The Contractor shall ensure that placement of soil in areas defined for tree planting is undertaken by methodical end tipping which avoids any travelling over or compacting the soil forming material.
- (iii) Any areas compacted through soiling of areas in a manner which is not in accordance with the approved method shall be made good at the Contractor’s own expense in accordance with the Client’s representative’s instructions.

B3: Materials

B3.1 Imported Topsoil:

All imported topsoil is to comply with the current BS3882 (2015), and is to be supplied, stored and spread in accordance with Annex N of the above BS except where otherwise stated in the contract documents. The soil shall be free from perennial weeds, seeds and all foreign matter.

Classification: Topsoil GRADE in accordance with BS 3882:2015 (as above) for all tree and shrub planting and grass areas. It is to be supplied from a named source and named suppliers as approved by the Client’s representative. Full certification to be provided for all imported topsoil; If test criteria falls short of the BS3882 2015 the topsoil will be rejected.

Texture: SANDY LOAM OR SANDY CLAY LOAM

PH: 6 - 7.5

Contamination - Do not use topsoil contaminated with subsoil, rubbish or other materials that are:

- Detrimental to healthy plant growth

- Corrosive, explosive or flammable
- Hazardous to human or animal life

In all areas to receive topsoil, do not use subsoil contaminated with the above materials.

B3.2 Depth of topsoil.

The following depths of topsoil should be supplied and laid: -

- i) Tree pits 600mm or as shown in section 4.13 Tree Pit details
- ii) Shrub beds 400mm
- iii) Grass areas 100mm

Trees: 40 litres of peat free tree planting compost is to be incorporated in the backfill of all tree pits. Trees are to be staked with double low stakes, 1500mm long, 750mm into the ground and the tree secured by one tree tie.

Hedging and planting beds: excavate 450mm deep and break up the base of the planting beds. Provide and lay 400mm deep topsoil in accordance with BS 3882. Cultivate to this depth and incorporate 100mm of approved compost. Supply plants in accordance with BS 3936 and plant in accordance with BS 4428. Hedging to be planted 4 plants per meter, in a double staggered row. Supply and lay medium grade ornamental bark mulch 75mm deep to all planting beds.

B4: Soft Landscape

B4.1 Setting-out

Setting out will be in accordance with the contact drawings or details as amended by Elizabeth Greenwood. (816.18.2 and 816.18.3 as revised)

B4.2 Delay in planting

If owing to the time of year, weather or other causes, there is a period of waiting between the completion of cultivation and commencement of planting and seeding operations, the contractor shall maintain the ground weed-free. If herbicides are used, they must be specified and applied in accordance with COSHH regulations and the client's policy on the use of pesticides.

B4.3 Herbicide application prior to cultivation for planting or turfing

The Contractor shall delay from cultivating the ground and planting if it contains more than a minimal amount of annual or perennial weeds and he may apply non-residual herbicide (COSHH approved) to all affected areas. This treatment should continue until all weed-growth has been successfully retarded. All dead plant material (including perennial roots, stones, rubble, rubbish etc.) must be removed and disposed of off-site - the area raked and leveled. Application of herbicide must only be undertaken in suitable and still weather conditions.

B4.4 Maintenance of planted - areas in the contract period

The Contractor is to keep all planted and grass areas thoroughly irrigated, free of weeds and rubbish throughout the duration of the Contract. At no time are any weeds to be allowed to run to seed. Weeding is to be carried out by careful hand-forking between plants taking care not to damage them. The root-systems of perennial weeds are to be completely removed.

B4.5 PLANTS: Delivery, Protection and Supply

All plants are to be adequately and carefully packed and protected to survive transport, by whatever means, to site, without damage in loading, transit, unloading or temporary storage on-site. If the branches of trees are to be tied-in during transportation then the Contractor must use ribbon, not string, which will cause damage. If, in spite of these precautions any part of the plant suffers damage they are to be carefully pruned and reshaped to the satisfaction of the Client's representative. If substantial damage has occurred to the plant when in transit or in the nursery, it shall be rejected or replaced.

All bare-rooted plants are to be supplied in co-extruded containers and must be supplied to site on the day of planting.

If there is a delay between supply, supply to site and planting, the Contractor must provide temporary storage and protection for the plants as approved by the Client's representative.

If there is a delay between supply, supply to site and planting, the Contractor must provide temporary storage and protection for the plants as approved by the Client's representative.

Bare-rooted plants: when the delay is longer than 24 hours, the plants are to be heeled-in in the nursery or temporary storage area, covered with soil, protected from wind and frost and kept adequately watered.

B4.6 PLANTS: Quality

All plants shall conform fully to the specification and schedule in respect of species, size and quality.

B4.7 Quality and Substitutions

All plants shall be the best quality nursery stock and obtained from an approved supplier in accordance with the latest published edition of BS 3936 (as amended) and the British Container Grower's Specification of Standards and to the sizes given in the plant schedules.

All plants shall be vigorous, well-formed and well-balanced without elongated branches, be defect and disease-free with the same physical characteristics of the mature plant. They shall have well-established and healthy root systems and be free from weeds, physiological disorders and discoloration. Plants will be rejected if they do not conform to the specification either prior or post-planting.

No plant substitutions are to be made without prior agreement.

Container-grown plants: All plants shall be a minimum 12 months old and be well-formed and bushy. Pot-bound plants will not be accepted, and the compost must be free from perennial weeds. The compost of container-grown plants shall hold sufficient reserved of nutrients to maintain the plant in a satisfactory condition between leaving the supplier and time of planting.

Bare-rooted plants: (80-100cm high unless otherwise stated): Bare-rooted plants shall be delivered to site on the day of planting. If planting is delayed for unavoidable reasons (adverse weather conditions), the stock shall remain in co-extruded bags, be kept frost-free, irrigated and out of direct sunlight.

Hardiness: All plants must be thoroughly hardened-off prior to being supplied to site. Particular care must be given to hardening-off plants supplied from glasshouses or polytunnels.

Labeling: All plants shall be true to name. Each plant, or bundles of single species or cultivar, shall be clearly labeled with its full botanical name.

Trees- to comply with BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations

B4.8 Planting method

Extra precautions will need to be made for planting outside of the planting season and that bare root stock could not be used. Preparation and cultivation of plant-beds must not be carried out when the ground is waterlogged, snow-covered or in frosty conditions. Planting shall be carried out when the weather is dull, and the ground is moist and workable. No planting must be undertaken in periods of strong winds.

If adverse weather conditions prevail after planting e.g. severe frosts or prolonged heavy rain, measure must be taken to protect and preserve the plants - as approved by the Client's representative. At all times, the machinery and tools used will be 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.

B4.9 Soil additives and cultivation

- Peat: No peat or peat-based materials are to be used as a mulch or soil improver.
- General fertiliser: Apply 15+9+9+3 or similar approved loose granular slow-release fertiliser evenly over planting area at 70gm/m² immediately before cultivation.
- Composted organic material - to be approved with samples to be supplied to the Client's representative.
- Tree planting compost- approved compost to be included in each pit to a rate of 80 litres per advance nursery stock tree.

B4.10 Setting-out: Trees/containerized plants/whip planting

All plants are to be planted in accordance with the contract drawings as shown in the contract drawings, and the outer line of plants must be 1m away from the any protective fencing.

B4.11 Disposal of containers/surplus materials

Before and after planting the non-perishable containers and prunings will be dispose of off-site.

B4.12 Planting

Pit planting for all containerized plants with pits dug in excess to the pot size or in excess of the bare root or rootball, soil broken up at the base and side of the pit, and backfilled with excavated material mixed with compost.

Notch planting can be carried out on bare root whips if the soil has been well cultivated and prepared before planting.

- The Contractor is to prune off badly damaged roots or branches. Any plants with badly damaged roots will be rejected by the Client's representative.
- Planting pits are to be 150mm wider than root spread in all dimensions.
- Plant upright in the prepared pit, return excavated topsoil, pack evenly around the roots or root-balls and heeled well in. Finished soil levels must be the same as those in the container or to the collar or neck when planting bare-rooted plants.
- After planting, any broken or damaged branches must be pared back to sound wood.
- All plants must be well firmed-in after planting and the Contractor must ensure that all plants continue to be well firmed-in throughout the contract period.
- After planting, fork or rake soil to a fine tilth, level and grade.
- Water thoroughly immediately after planting to full depth of planting pit.

All planting shall be firmed-up if loosened by frost or wind during the contract period.

B4.13 Tree Stock

Trees shall correspond exactly with the species and varieties indicated on the schedules and on the contract drawings. They shall have well-branched symmetrical crowns, straight stems with a clearly defined vertical leader and well-developed root systems. Containerised trees shall have been grown-on in the container for at least one full season after containerisation.

Stock sizes shall be as scheduled in accordance with the following:

DESCRIPTION	CODE	GIRTH cm	HEIGHT , metres	CLEAR STEM metres
Standard	St	8-10cm	2.75-3.00m	1.8
Selected Standard	SS	10-12cm	3.00-3.5m	1.8
Heavy standard	HS	12-14cm	3.5-4.25	1.8
Extra heavy standard	EHS	14-18cm	4.25-5.0	1.8m+
Transplant	TR		0.60-0.90m	
Feathered transplant	ETR		1.5-1.80m	
Feathered tree	FT		1.80-2.40m	
Semi- mature	SM	20-25cm+		

B4.14 Tree Pit

Tree pits will be free-draining, and the base of each pit shall be broken up to a depth of 300mm with the centre of the pit base left high to prevent water ponding around the roots. Care will be taken to avoid glazing the base and sides of the pit in heavy clay soils. Clean topsoil excavated from the pit shall be set aside for re-use and some any sub-soil can be re-used for infilling the bottom 400mm of the pit. The pit shall be prevented from freezing in cold weather.

The size of pits are to be as follows: -

- Whips and small feathered trees 600mm diameter x 450mm deep
- Standards and large feathered trees 900mm diameter x 600mm deep
- Tall standards 1200mm diameter x 750mm deep

- Rootball (including advanced nursery stock tree), Semi mature and conifers 300mm in excess of root ball, to ensure that the nursery planting depth is maintained after settlement.

The pit is to be back filled with approved topsoil.

The roots of bare-root trees are to be soaked in water or an approved propriety tree root hydration solution for at least one hour prior to planting

These are to be planted to their natural depth and their roots loosened on removal of the container. Tree planting compost is to be incorporated in the back-fill material. (see 4.9) and firming down in 150mm layers as filling proceeds and finally heeling in firmly around root collar. In all cases the tree pit should be excavated to allow adequate clearance between the root ends (when fully spread) or the perimeter of the rootball and the side of the pit.

Should any tree pit, once excavated, prove to be too small to accommodate the rootball of the selected tree, the pit should be enlarged to easily accommodate the entire rootball; on no account must tree roots be trimmed or altered in order to be accommodated in any excavation.

All tree planting should be implemented in accordance with the supplier's recommendations. (see diagram Appendix B)

B4.15 Tree Stakes and Ties

Advanced nursery stock trees (12-16cm) are to be staked with double round straight, pressure impregnated softwood stakes of 1.5m length and 75 mm diameter pointed at one end. The stake is to be driven into the ground 750mm mm below the finished level. General position of stakes related to trees to be agreed on site Client's representative prior to works commencing.

Standard and half standard sized trees (6-10cm) are to be staked with single round straight, pressure impregnated softwood stakes of 1.0m length and 50 mm diameter pointed at one end. The stake is to be driven into the ground 500mm mm below the finished level. General position of stakes related to trees to be agreed on site Client's representative prior to works commencing.

Stakes are to be driven into the excavated pit prior to planting and the tree secured to the stake immediately after planting.

The trees shall be secured to the stakes using 50mm diameter hessian webbing looped round the trees and secured to the stake with no 2 galvanised nails

B4.16 Option- Tree watering bags

Supply and install a 90 litre tree water bag round the base of each semi mature or advanced Nursery Stock tree, as supplied by Barcham Trees or similar. This provides a slow-release watering system. www.barcham.co.uk/accessories/tree-watering-bag

B4.17 Mulching

All trees in soil areas and shrub beds are to be mulched with a 75 mm layer of ornamental grade bark mulch when planting work has been completed with 75mm deep with ornamental bark mulch and kept weed-free.

A 50 mm deep trench, 100 - 150 mm wide will be formed at the edges of planting beds abutting paved areas prior to mulching so as to prevent mulch spilling off the plant beds.

Additional bark mulch 'top up' of the same grade will be required at the end of the first 12 months after Practical Completion. The Contractor shall price accordingly in his tender and refer to the maintenance schedule of this specification.

B4.18 Grass seed

Areas to be grass seeded shall be cultivated to a depth of 25 mm to a fine tilth. All stones greater than 38 mm in any one dimension shall be carted off site to tip. Grass seed is to be spread in two directions at a rate in accordance with the supplier's instruction or if not specified at 50 grams per square metre. Grass seed areas to be lightly raked to ensure seed is evenly incorporated into the upper 10 mm of soil.

Grass seed to be general amenity seed mixture for example general amenity landscape grass seed, as supplied by Boston seeds <http://www.bostonseeds.com> or similar, and sown to the supplier's approved sowing rate

- Amenity Perennial Ryegrass 50%,
- Strong Creeping Red Fescue 25%
- 25% Tall Fescue

B4.19 Grass Turf

- i) Existing grass area to be cultivated to a depth of 150mm and all grass sods, stones greater than 38mm in any one dimension and any other item of rubbish to be carted off site to tip.
- ii) Additional topsoil to be supplied and spread to make up levels and to create even falls. Topsoil is to be cultivated to form a fine tilth prior to the laying of turf.
- iii) Turf to be supplied in rolls, not dried out or yellowed. Turf will be laid on the day of delivery. Turf rolls are to be undamaged without holes or torn or ripped edges. Turf grown on any nylon matting will not be accepted.
- iv) Turves are to be laid in stretcher bond closely laid and only whole turves are to be used at the edges.
- v) Turf will be weed free and of a uniform size and thickness.
- vi) Turf must be laid from suitably sized running boards. Walking over or standing on the turves will not be allowed until fully established.
- vii) After laying the joints of the turves are to be filled with fine topsoil sand mixture and the surplus brushed off.
- viii) The finished levels of the turves should be 50mm above the surrounding paved areas and above the shrub beds and tree pits.

C1: Maintenance

C1: General Maintenance

All plants are to be maintained until established. Shrub beds are to be kept weed free. Any additional weed growth round the base of the plant removed. The bark mulch is to be topped up annually to 75mm and the planting beds kept free of litter.

All plant beds are to be watered with an automated drip irrigation system.

Replacement Planting: Replace any tree or plant within a five-year period that fails to thrive or is below specification. Any grass area that fails shall be re-turfed or re-seeded in accordance with the specification.

C2: 5 Year Maintenance Schedule

Item of work	Operation	Frequency	Timing
1.1	All trees are to be maintained until established.		
1.2	Newly-planted trees are to be watered during April-September- The intervals between watering is to be fortnightly with additional visits if there has no rainfall within a weekly period	2 weekly	April until September for first 2 years
1.3	Fork over panned down areas.	Annually	Winter period
1.4	Maintain mulched areas at specified depth, topping up as necessary to maintain a 75 mm cover.	Annually	Winter period
1.5	Check that each tree is growing healthily and remove all dead wood, damaged or diseased branches. Remove any suckering shoots growing from the clear stem. Prunings are to be removed off site to the contractor's tip.	Annually	September
1.6	Any wounds shall be neatly pared back to sound wood in accordance with BS. 3998: 2010 'Recommendations for Tree Work'. Re-firm trees which have been loosened by the wind or frost.	Annually/ as required	
1.7	Remove all stakes and ties after two years or after the trees have rooted successfully.		
2	Shrubs and grasses		
2.1	All shrubs are to be maintained until established.		
2.2	Keep shrub bed free from weed growth and litter	As necessary	March- November
2.3	Keep plants firmed and firm where required	As necessary	March- November
2.4	Cut back if planting overhangs planting beds	As necessary	March- November
2.5	Slow release NPK fertiliser application	Annually	1 and 3 year
2.6	Top up bark mulch to 75mm	Annually	Winter period
2.7	Cut back or rake out dead foliage in early spring before the plant begins growing	Annually	Early spring

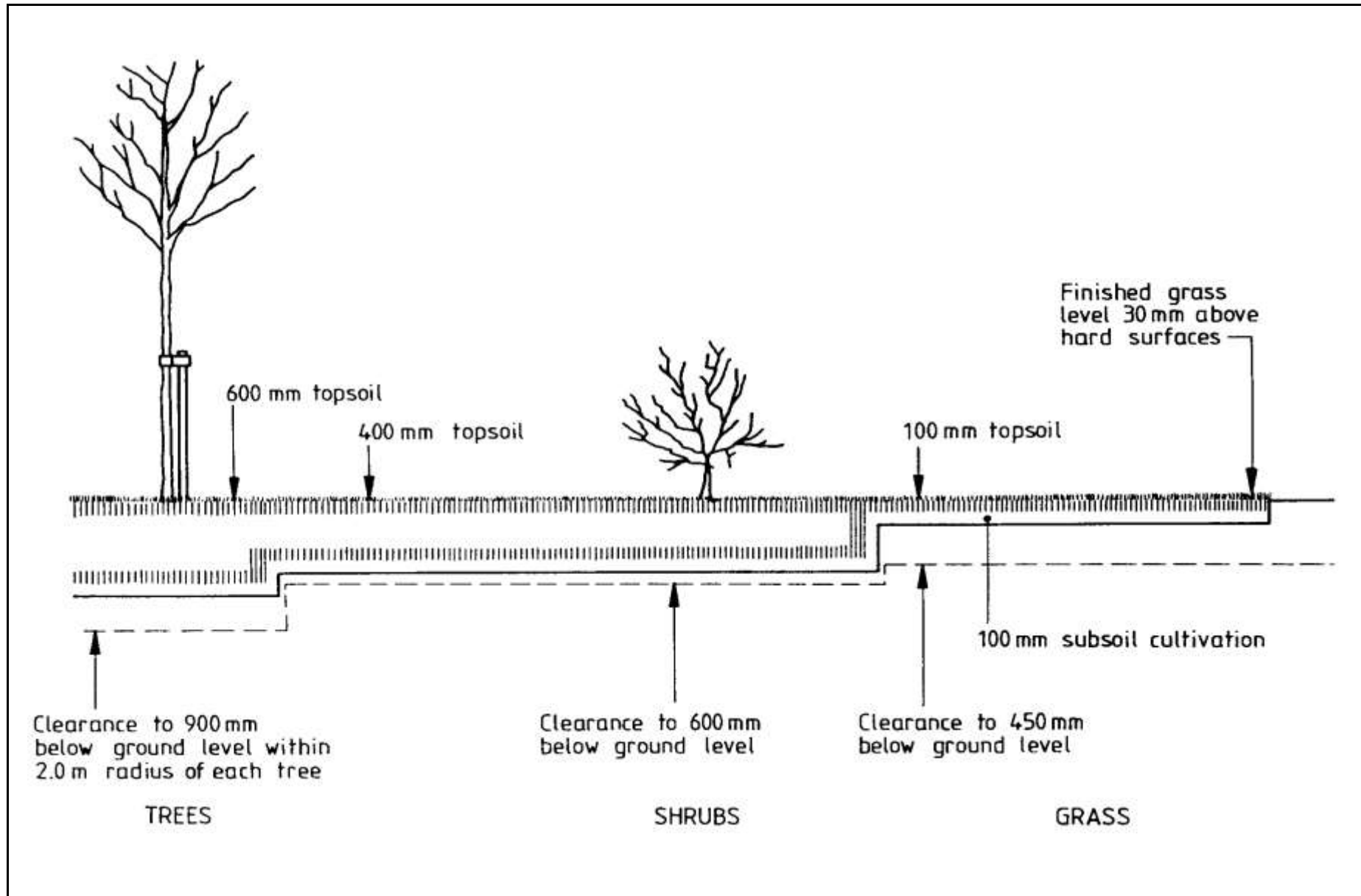
Item of work	Operation	Frequency	Timing
2.8	Cut back Grasses to one third of their height during the winter period	Annually	Winter period
2.9.	Cut back dogwood and coppice	Annually	March
3	Hedging		
3.1	All hedging is to be maintained until established.	As necessary	
3.2	Keep hedge base bed free from weed growth and litter	As necessary	March- November
3.3	Keep plants firmed and firm where required	As necessary	March- November
3.4	Prune hedges to allow flowering and fruiting, and to prevent overhanging footpaths and other areas of hard paving: - Cotoneaster hedging to 1.5. metre - Hypericum 'Hidcote' 1.5m - Photinia fraseri 'Red Robin' 1.5m - Prunus lusitanica 1.5m	Annually when established	Later summer
3.5	Slow release NPK fertiliser application	Annually	1 and 3 year
3.6	Top up bark mulch to 75mm	Annually	Winter period
4	Lawns		
4.1	Water in dry period until the grass is established	As necessary	Summer period
4.2	First cut when grass reaches 50mm down to 25mm, with edge trim	Once only	
4.3	Cutting when grass reaches 50mm high, down to 35mm	When required	All year round
4.4	Application of fertilizer and selective weedkiller as appropriate	If required	In accordance suppliers' instructions
4.5	Re-seeding of worn areas	As necessary	As required
4.6	Water in dry period until the grass is established	As necessary	Summer period
5	To all areas		
5.1	Tidy up areas removing rubbish, litter, etc	As necessary	Year round
5.2	Treat pests and diseases.	As necessary	Year round
5.3	Water all plant material to maintain healthy growth.	As necessary	Years 1-2

5.4	Replacement planting of any plant material that has died or failed and is below the specified size (when planted)	As necessary, within a 5-year period	November-March
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Roland Brown M.A. on behalf of **Elizabeth Greenwood C.M.L.I., F.Arbor.A**

February 2022

Appendix A: Groundwork for Planting and Grass



Appendix B: Roof Planters

Indicative specification for roof planters either free standing or solid construction as part of the roof architecture

