



Landscape Maintenance Report

Tees Valley Energy Recovery Facility

Grangetown Prairie, Dorman Point

Prepared on behalf of Viridor Tees Valley Limited

March 2023



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TEES VALLEY ENERGY RECOVERY FACILITY
GRANGETOWN PRAIRIE, DORMAN POINT
LANDSCAPE MAINTENANCE / MANAGEMENT REPORT
VIRIDOR TEES VALLEY LIMITED
MARCH 2023

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1.0 Landscape maintenance / Management

- 1.1 This document has been prepared as part of the discharge of planning condition 14 regarding landscape details in respect to the outline planning approval of the construction of an energy recovery facility (ERF) and associated development reference: R/2019/0767/OOM.
- 1.2 This document should be read in conjunction with the following planting plans:
- TV-XX-ZZ-DR-L-P003F – Tree planting and grass seeding
 - TV-XX-ZZ-DR-L-P004F – Shrub planting 1 of 5
 - TV-XX-ZZ-DR-L-P005F – Shrub planting 2 of 5
 - TV-XX-ZZ-DR-L-P006E – Shrub planting 3 of 5
 - TV-XX-ZZ-DR-L-P007E – Shrub planting 4 of 5
 - TV-XX-ZZ-DR-L-P008E – Shrub planting 5 of 5
- 1.3 The landscape areas subject to landscape maintenance/management are all the soft areas highlighted on the above plans.
- 1.4 For the grass seeding areas, trees and shrub areas the landscape contractor will carry out maintenance until the end of the 12 months defects (rectification) period and thereafter maintenance will be undertaken by a landscape maintenance contractor appointed by Viridor Tees Valley Limited.

Soft Landscape

Trees	
Overview:	<p>Maintenance of all trees will be carried out as necessary in order to:</p> <ul style="list-style-type: none"> • Ensure that the trees survive and thrive • Keep areas around the base of trees free of weeds • Ensure stability and uniformity • Ensure well formed crowns develop • Keep free of pests and diseases
Years 1 Rectification period	<p>Survive and thrive:</p> <p>Watering: Adequate irrigation is the key to the survival and success of the trees and must be given top priority. Particular attention must be paid to the watering of the advanced nursery stock trees (18-20cm girth trees).</p> <p>Irrigation is to be carried out with equipment and methods appropriate to the site and in the most resourceful and efficient manner.</p> <p>Sufficient water must be applied to the root ball to ensure that each tree thrives. Watering will take place between the months of May and September according to need. It is particularly important to prevent dryness at the roots at the beginning of the growing season. More watering visits will take place during hot, dry periods than in cool, damp periods.</p> <p>In the first year, twelve visits overall should be anticipated. However, more visits may be required in drought periods.</p> <p>The Landscape Contractor is to monitor need. If the growing season is wet, fewer visits will be required.</p> <p>Replacement of defects: Any dead or dying trees within the first 12 months will be replaced within the next appropriate growing season during this period.</p>
	<p>Stability and uniformity:</p> <p>Underground guyed trees: All 18-20cm girth trees will be underground guyed. If, during the first year, any tree should settle unevenly, leading to leaning trunks, or if there is movement of the root ball within the pit, underground guys shall be checked and adjusted appropriately, followed by re-instatement. The site to be left in a clean and tidy condition.</p>
	<p>Pruning:</p> <p>During the first year pruning will be limited to the removal of dead wood in order to achieve healthy growth and balanced canopy formation.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the plants and take action as appropriate to maintain them in a healthy and disease-free condition.</p>

<p>Trees Years 2-5</p>	<p>Survive and thrive:</p> <p>Watering: Adequate irrigation is the key to the survival and success of the trees and must be given top priority. Sufficient water must be applied to the root ball to ensure that each tree continues to thrive.</p> <p>Watering will take place between the months of May and September according to need. It is particularly important to prevent dryness at the roots at the beginning of the growing season. More watering visits will take place during hot, dry periods than in cool, damp periods. The Landscape Contractor is to monitor need.</p> <p>In years 2-3, the anticipated number of watering visits will be six per year, but will be increased or decreased according to weather conditions as specified above.</p> <p>From years 4-5 the trees will require less watering. However, during long periods of prolonged hot weather trees will still require some watering.</p> <p>Replacement of defects: plant losses will be replaced during this period.</p>
	<p>Litter and weeds:</p> <p>Litter and weeds will be manually cleared from tree bases and verges during routine maintenance operations for grass and planted areas.</p>
	<p>Stability and uniformity:</p> <p>Underground guyed trees: Although it is unlikely for the rootball to settle after the first year, the contractor is to monitor each tree during maintenance visits to check if it is leaning, or if there is movement of the root ball within the pit, underground guys shall be checked and adjusted appropriately, followed by re-instatement. The site to be left in a clean and tidy condition.</p>
	<p>Pruning:</p> <p>Continue to removal dead wood in order to achieve healthy growth and balanced canopy formation. From years 2-5 and onwards, pruning shall be carried out if necessary to ensure consistency in the canopy, for example to remove any wind damaged branches and re-shape.</p> <p>Dead or dying stock within the first 5 years following completion will be replaced with equivalent stock in the next planting season.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the plants and take action as appropriate to maintain them in a healthy and disease-free condition.</p>

Native Woodland Mix	
Overview:	<p>Maintenance of the plants will be carried out as necessary in order to:</p> <ul style="list-style-type: none"> • Ensure that planting survives and thrives • Keep planted areas free of litter • Keep free of weeds • Provide optimum biodiverse habitat • Provide adequate screening to the lower /ground floor areas of the site
Years 1 Rectification period	<p>Establishment:</p> <p>All light standard stock, feathered stock and transplants to be planted between late October to late March. Tubex tree guards or equal approved to be provided. Each guard to be securely fixed to 1No. 25mm x 25mm square sawn 1.2m overall length hardwood stakes (Chestnut or Oak) with 2 nylon ties or staples per stake at 300mm centres.</p> <p>Minimal trimming of the leading shoots is to be undertaken allowing a gradual increase in height of the mix until it reaches a height of approximately 4-6m+ above ground level. Standard trees to be managed to maintain a tight even canopy.</p> <p>Watering: Adequate irrigation is the key to the survival and success of the woodland mix. Sufficient watering is required to ensure that each tree continues to thrive. Watering will take place between the months of May and September according to need.</p>
	<p>Stability and uniformity:</p> <p>Staked trees: Stakes and ties shall be checked annually to ensure security and freedom of movement for the tree. All stakes, ties and guards will be inspected and maintained in good order – adjusting, firming and replacing as necessary.</p>
	<p>Pruning:</p> <p>During the first year pruning will be limited to the removal of dead wood in order to achieve healthy growth and balanced canopy formation. Any damaged plants, which can be restored to health, shall be pruned back in accordance with good horticultural practice.</p> <p>Dead or dying stock will be replaced with equivalent stock in the next planting season.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the plants and take action as appropriate to maintain them in a healthy and disease free condition.</p>

Native woodland mix Years 2-5	<p>Survive and thrive:</p> <p>Continue to water as necessary during the months of May to September as required to allow for continued healthy establishment of stock. Watering: Adequate irrigation is the key to the survival and success of the mix.</p>
	<p>Litter and weeds:</p> <p>Woodland mix areas to be kept free of litter and weeds during routine maintenance operations for grass and planted areas.</p>
	<p>Stability and uniformity:</p> <p>Removal of stakes and ties shall be carried after establishment (usually 3-5 years after planting) or if the shelter guards are inhibiting plant growth.</p>
	<p>Pruning:</p> <p>Contractor to undertake 1 or 2 clippings a year to promote bushy growth but leading shoots to be left until a height of 4-6m is achieved. Any damaged plants, which can be restored to health, shall be pruned back in accordance with good horticultural practice.</p> <p>Dead or dying stock within the first 5 years following completion will be replaced with equivalent stock in the next planting season.</p> <p>Beyond 5 years the contractor is to clip woodland mix once a year to keep bushy and thin out overcrowding stock where necessary.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the plants and take action as appropriate to maintain them in a healthy and disease-free condition.</p>

Ornamental shrub planted areas

<p>Overview:</p>	<p>Maintenance of the plants will be carried out as necessary in order to:</p> <ul style="list-style-type: none"> • Ensure that planting survives and thrives • Keep planted areas free of litter • Keep free of weeds • Ensure optimum effect of providing a crisp contemporary landscape design to the entrance of this important gateway site
<p>Years 1-5</p>	<p>Survive and thrive:</p> <p>Watering: In times of drought ensure adequate watering to prevent wilting and stress.</p> <p>Fertiliser: Assess plant condition and apply suitable fertiliser, to manufacturer’s recommendations, to remedy any deficiencies.</p> <p>Pests, diseases and disorders: Monitor the plants and take action as appropriate to maintain in a healthy and disease-free condition. Replace plants where appropriate.</p> <p>Remove and Replace Dead Plants: As soon as possible.</p>
	<p>Ornamental shrubs, herbaceous perennials & ornamental grasses:</p> <p>All the stock chosen requires relatively low maintenance. In order to make the most of the decorative coloured stems of the dogwood species they should be annually pruned hard from late March to mid-April, just as the new growth is developing.</p> <p>The dead flower heads and stems of Phlomis russeliana look very architectural during the winter months and therefore should only be cut annually and have old, tired leaves removed in April.</p> <p>Libertia grandifloia is an evergreen clump forming plant. Remove faded flower stems and cut back faded or dead leaves annually in spring.</p> <p>The dead flower heads and stems of Persicaria amplexicaulis which is a form of red bistort looks very architectural during the winter months. Cut back in late winter or early spring.</p> <p>Miscanthus, Panicum and Calamagrostis are ornamental grass species with all year interest. Leave the leaves and spent seedheads alone as they provide winter interest. Cut right down annually in February through to late March to make way for new growth.</p>
	<p>Ornamental hedges:</p> <p>Lonicera nitida forms a very good, fast growing evergreen hedge. It is used throughout the concentric entrance design in short lengths to form a ‘foil’ for the ornamental grasses and shrubs and to accentuate the</p>

	<p>concentric planting pattern. On each visit, check planted areas for litter and if found, remove safely from site.</p> <p>Hand Weeding: Remove all weeds, including roots, by hand, using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to plants and mulched surfaces and leaving the area in a neat, clean condition. Remove all arisings.</p> <p>Allow hedge to reach a height of 1.2m above ground level as rapidly as possible, trimming back lateral branches moderately to establish the required shape.</p> <p>This is a relatively low maintenance species and requires a trim 2-3 times a year to keep looking neat and square edged. Trim in the summer or autumn.</p>
	<p>Litter and weeds:</p> <p>On each visit, check planted areas for litter and if found, remove safely from site.</p>
	<p>Shrub pruning:</p> <p>Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice. Remove all arisings from site.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the plants and take action as appropriate to maintain them in a healthy and disease-free condition.</p> <p>Dead or dying stock within the first 5 years following completion will be replaced with equivalent stock in the next planting season.</p>

Native Beech Hedging	
Overview:	<p>Maintenance of the plants will be carried out as necessary in order to:</p> <ul style="list-style-type: none"> • Ensure that planting survives and thrives • Keep free of weeds and litter • Ensure optimum effect of providing a crisp hedging in line with the contemporary landscape design to the entrance of this important gateway site
Beech hedge Years 1 Rectification period	<p>Establishment:</p> <p>All feathered stock beech plants to be planted between late October to late March. Tubex tree guards or equal approved to be provided. Each guard to be securely fixed to 1No. 25mm x 25mm square sawn 1.2m overall length hardwood stakes (Chestnut or Oak) with 2 nylon ties or staples per stake at 300mm centres.</p> <p>Minimal trimming of the leading shoots is to be undertaken allowing a gradual increase in height of the hedgerow until it reaches a height of approximately 1.5m above ground level. Incremental growth of the lateral shoots will be promoted to achieve dense bushy growth throughout the hedge profile.</p> <p>Watering: Adequate irrigation is the key to the survival and success of the hedgerow. Sufficient watering is required to ensure that hedge plants thrive. Watering will take place between the months of May and September according to need.</p>
	<p>Stability and uniformity:</p> <p>Loose or defective shelters shall be adjusted, re-fixed or replaced to original specification and to prevent chafing.</p>
	<p>Pruning:</p> <p>During the first year pruning will be limited to the removal of dead wood in order to achieve healthy growth and balanced canopy formation. Any damaged plants, which can be restored to health, shall be pruned back in accordance with good horticultural practice.</p> <p>Dead or dying stock will be replaced with equivalent stock in the next planting season.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the plants and take action as appropriate to maintain them in a healthy and disease-free condition.</p>
	<p>Survive and thrive:</p> <p>Continue to water as necessary during the months of May to September as required to allow for continued healthy establishment of plants.</p>
	<p>Litter and weeds:</p> <p>Hedge areas to be kept free of litter and weeds during routine maintenance operations for grass and planted areas.</p>

Beech hedge Years 2-5	<p>Stability and uniformity:</p> <p>Removal of stakes and ties shall be carried after establishment (usually 3-5 years after planting) or if the shelters guards are inhibiting plant growth.</p>
	<p>Pruning:</p> <p>During the years before the maximum 1.5m height has been achieved the contractor to undertake 1 or 2 clippings a year to promote bushy growth. Any damaged plants, which can be restored to health, shall be pruned back in accordance with good horticultural practice.</p> <p>Trimming should be carried out to prevent encroachment of plants onto adjacent grass verges and adjacent shrubs. Dead or dying stock within the first 5 years following completion will be replaced with equivalent stock in the next planting season. The sides of the hedge should be cut at a slight angle, forming a final shape 1m wide at the base and a 0.85m wide at a height of 1.5m. Remove current growth rather than old wood using hedge trimmers.</p> <p>Once 1.5m height is achieved the contractor is to clip hedges once a year during July-August. Trim carefully and neatly to a regular line and shape to maintain even dense growth.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the plants and take action as appropriate to maintain them in a healthy and disease-free condition.</p> <p>Dead or dying stock within the first 5 years following completion will be replaced with equivalent stock in the next planting season.</p>

Amenity Grass and wet meadow grass mix	
Years 1-5	<p>Overview:</p> <p>Carry out operations as necessary in order to:</p> <ul style="list-style-type: none"> • Maintain grass height within the specified range • Maintain grass areas reasonably free from moss, thatch, weeds, frost heave, and with neat well-defined edges • Ensure that soil and grass do not become compacted or waterlogged • Maintain grass in a healthy vigorous condition, free from disease, fungal growth, discoloration, scorch, wilt, compaction and water logging (water logging acceptable for wet grassland area mix area) • Repair grassed areas damaged by trampling, abrasion or scalping during mowing • Remove litter and fallen leaves regularly to maintain a neat appearance • Maintain grass areas in a manner appropriate to the intended use
	<p>Sowing:</p> <p>Cultivation is to be carried out according to good agricultural practice to ensure a good seedbed.</p> <p>Seed to be sown in calm weather during March / April, selecting a time when the soil is moist and can be worked. Seed is to be spread evenly at the specified rates and then lightly harrowed or raked. The ground is to be rolled after seeding using a lightweight Cambridge roller. Seed bed should not be allowed to dry out during germination and establishment.</p>
	<p>Grass cutting:</p> <p>Remove litter, rubbish and debris from grassed areas before mowing. Maintain height of grass below 75mm. Cut when necessary, using a cylinder or rotary mower, to a height of 25-40mm. Remove arisings. Cut to a neat even finish, without rutting or compaction of the surface. Leave edges neat and well defined. Cut only in favourable conditions, using a suitable cylinder or rotary mower.</p>
	<p>Leaf Removal:</p> <p>In late December remove fallen leaves from all lawns and adjacent hard surfaces by sweeping / raking by hand or by leaf blower.</p>
	<p>Fertiliser:</p> <p>Spring Application: Apply Fisons PS5 or equivalent approved at the manufacturers recommended rate, but only if the grass is showing evidence of nutrient deficiency.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the grass areas and take action as appropriate to maintain it in a healthy and disease-free condition.</p>

Wildflower rich grass seeded areas	
Years 1-5	<p>Overview:</p> <p>Carry out operations as necessary in order to:</p> <ul style="list-style-type: none"> • Maintain wildflower rich grassland height within the specified range • Maintain grass areas reasonably free from moss, thatch, weeds, frost heave, and with neat well-defined edges • Ensure that soil and grass does not become compacted or waterlogged • Maintain grass in a healthy vigorous condition, free from disease, fungal growth, discoloration, scorch, wilt, compaction and water logging • Repair grassed areas damaged by trampling, abrasion or scalping during mowing • Remove litter and fallen leaves regularly to maintain a neat appearance • Maintain grass areas in a manner appropriate to the intended use
	<p>Sowing:</p> <p>Cultivation is to be carried out according to good agricultural practice to ensure a good seedbed.</p> <p>Seed to be sown in calm weather during March / April, selecting a time when the soil is moist and can be worked. Seed is to be spread evenly at the specified rates and then lightly harrowed or raked. The ground is to be rolled after seeding using a lightweight Cambridge roller. Seed bed should not be allowed to dry out during germination and establishment.</p>
	<p>Grass cutting:</p> <p>Allow to germinate, and then give first cut at the end of April to reduce the establishment of the grass species and to allow perennial plants a greater chance to establish. Allow to grow, flower and for annual species to set seed. Cut mid-September and remove all arisings off site.</p> <p>Onward cutting regime will be first cut in April and second cut in September always removing arisings off site.</p>
	<p>Leaf Removal:</p> <p>In late December remove fallen leaves from all lawns and adjacent hard surfaces by sweeping / raking by hand or by leaf blower.</p>
	<p>Pests, diseases and disorders:</p> <p>Monitor the grass areas and take action as appropriate to maintain it in a healthy and disease-free condition.</p>