01
LANDSCAPE MAINTENANCE AND MANAGEMENT:

Client: Spirotech
Location:Oakwood, Sawtry
Prepared by: OLA
To be used in conjunction with the Soft Landscaping Specification

Long term design objectives - Over a 5 year Period

The general intent of landscape maintenance of the site is to ensure that, over a period of time, the planting develops to form a mature landscape. Management and maintenance is to be undertaken in such a way as to:

• Allow healthy plants to develop, unhindered by unwanted weed growth or other inhibiting factors.

British Standards

All materials, workmanship and horticultural terms shall comply with the current, appropriate British Standards unless specifically stated in this specification.

Landscape maintenance schedules

Maintenance visits will typically be undertaken once monthly between October and March and twice monthly between April and September. A guide minimum number of 18 visits shall therefore be undertaken. The primary maintenance operations will include:

·Watering plants as necessary to aid establishment during the early years after planting.
·Keeping planting areas free from weeds. All planted / mulched areas shall be hand weeded or treated with an appropriated herbicide as appropriate / required (to be approved by client).
·Hedgerows: trim to maintain height once or twice per annum as required and appropriate to the species.
·General pruning and trimming to ensure footways, signs etc. are not obscured and to ensure plants develop appropriately according to their species.
·Fertilizing of planting once yearly in spring using a suitable slow release fertiliser/when needed.
·Removal of litter (to be undertaken as part of the general site cleaning and not necessarily by the landscape maintenance contractor).
·Replacing plants that fail where required, with the approved (like for like) species.
·Clearance of shrub encroachment within specified distances from sewer easements as required.

All landscape maintenance work is to be undertaken by the clients chosen contractor and their operatives capable of undertaking the work.

4 - WEEKLY LANDSCAPE MAINTENANCE CHECKLIST

1. Mow and edge lawns if needed.
2. Prune back any shrubs overhanging kerbs or pavement.
3. Prune back any groundcover overhanging kerbs or pavement.
4. Remove litter and leaves from plants, planters, and parking lots.
5. Remove any broken or fallen branches from trees. Remove sucker growth from tree trunks.
6. Replace bark mulch which has been knocked or washed out of planters/bare soil. Smooth mulch layer if it has been disturbed.
7. Check plants for signs of stress or disease. Replace any plants that meet conditions for replacement at the contractor's expense. Request authorization to replace other dead or missing plants. Note: You must request authorization to make replacements within two weeks of the damage becoming evident!
8. Sweep or blow clean all walkways, curbs, and gutters.
9. Treat for any signs of disease or pest infestation.
10. Complete any items required on the Monthly Checklist.
11. Water any plants before they are dry and stressed, as instructed in the Irrigation Section of this document
12. (If site applicable to site). Check the irrigation system and make emergency repairs as needed or request authorization to make major repairs.
    Note: you must request authorization for repairs within one week of the damage becoming evident!
13. Adjust the irrigation controllers for current water needs of plants.
14. Weeds - Remove any weed growth within plant guards by hand. Remove weeds entirely, including roots. Remove the minimum quantity of soil. Upon completion, rake mulched surfaces area to a neat, clean condition. Reinstate mulch to original depth.

5 - MONTHLY MAINTENANCE CHECKLIST

January

1. Prune any tree branches that interfere with public safety. Parking and street trees should be pruned to encourage strong upward growth.

February

1. Add new mulch to exposed bare soil where the mulch depth has been reduced to less than 2 inches (50mm) thick. Mulch not required where shrubs or groundcover completely hide the soil surface from view.

March

1. (If site appropriate) Flush out irrigation systems as needed and check for proper operation of each valve zone.
2. Remove and clean filter screens.
3. Clean or replace plugged sprinkler nozzles. Replace plugged drip emitters.
4. Replace irrigation controller program back-up batteries.

April

1. Add new mulch to exposed bare soil where the mulch depth has been reduced to less than 2 inches (5 cm) thick. Mulch not required where shrubs or groundcover completely hide the soil surface from view.

May

1. Apply fertilizer to all landscape areas (if needed). May fertilization for Shrubs/groundcover areas may be deleted when the plants reach maturity or completely fill areas, without space between them.

June
1. Prune spring & winter-flowering shrubs as needed to maintain proper shape.
2. Add new mulch to exposed bare soil where the mulch depth has been reduced to less than 2 inches (50mm) thick. Mulch not required where shrubs or groundcover completely hide the soil surface from view.

July
No additional items.

August
1. Add new mulch to exposed bare soil where the mulch depth has been reduced to less than 2 inches (50mm) thick. Mulch not required where shrubs or groundcover completely hide the soil surface from view.

September
1. Inventory all plant materials. Inventory shall include an exact count of all shrubs and trees. Replace any dead or missing plants subject to the terms of these specifications.

October
1. Check on general plant heatlh taking notes of plants that are failing so that they can be replaced in spring the following year.

November:
1. No additional items.

December
1. Prune any tree branches that interfere with public safety. Prune all car parking and street trees yearly to encourage strong, upward growth.
2. Prune summer and fall-blooming shrubs as needed to maintain proper shape.

6 - OUTLINE SCOPE OF WORK

A. The contractor shall provide regular maintenance services as outlined in these Landscape Maintenance Specifications and the Weekly and Monthly over a 5yr period from planting completion.

B. The contractor shall examine the landscape, including irrigation (if necessary), on a weekly basis, looking for problems or potential problems with the landscape.

C. The contractor shall provide at his/her own risk all labour, materials, tools, equipment, insurance, transportation, hauling, dumping, and all other items needed to provide the services outlined in this Specification.

D. The contractor shall make minor replacements and repairs to the landscape facilities as part of the required weekly maintenance work. Major items needing replacement or repair shall be reported to the owner's representative within one week of occurrence. A minor item would be something that takes less than 15 minutes to repair by skilled workmen, using minimal replacement parts. Some specific guidelines for determining if an item is minor or major are given in the section pertaining to each item. The contractor shall be available to perform additional work related to the landscape maintenance as may be authorized in writing by the owner. Such work shall be non-minor items relating to landscape care, which are not a part of the normal maintenance work as outlined in this specification.

E. Any facilities or property damaged or destroyed as a result of the landscape maintenance contractor's operations at the site shall be repaired or replaced at the landscape maintenance contractor's expense.

F. The contractor shall take all reasonable precautions required to protect plants from abnormal temperatures.

7 - CHECKLISTS

A. The WEEKLY LANDSCAPE MAINTENANCE CHECKLIST is made a part of this specification as if repeated in full here. The contractor shall review this checklist weekly and complete all applicable items on the list weekly.

B. The MONTHLY MAINTENANCE CHECKLIST is made a part of this specification as if repeated in full here. The contractor shall review this checklist monthly and complete all the applicable items listed for the current month prior to the end of the month.

8 - CARE OF PLANTED AREAS

A.Trees

1. Trees shall be maintained in a healthy, vigorous growing condition, free from disease and large concentrations of pests.

2. Prune trees only to remove dead, diseased, broken, dangerous, or crossing branches, and as required below. Pruning of this type is a minor, non-reimbursable, cost to be included as part of the regular maintenance.

3. Prune trees only in appropriate months as determined by an arborist. Prune in accordance with generally accepted standards for proper pruning.

4. Only seal wounds on plums and cherries (Prunus sp), where wound paint may be used to exclude silver leaf disease spores

5. Discard all tree trimmings off-site using a legal method.

6. Any tree found to be dead or missing shall be replaced with plant material of identical species at the landscape maintenance contractor's expense, unless the loss was due to excluded damage. If the loss resulted from excluded damage, replacement will be paid for as additional work. Submit a quote for replacement within two weeks of the loss as outlined.

7. Replacement trees shall be approved for size and appearance by the owner's authorized representative prior to planting. Replacement trees shall be double staked with 2 inches (5 cm) diameter stakes unless otherwise approved by the owner's authorized representative.

8. Remove tree stakes from trees once the tree has rooted and is firm in the ground able to support themselves. Remove stakes from site and dispose of by a legal method. Recycle used stakes if possible.

Check with local authorities prior to pruning. The contractor is responsible for determining if permits are needed and shall obtain and pay for any required permits as part of the basic landscape maintenance fee.
10. The cutting blades on pruning shears, clippers, blades, saws, etc. shall be sterilized after pruning each tree to minimize the possibility of spreading disease. When pruning trees known or suspected to be diseased, cutting blades shall be sterilized after each cut. Sterilize blades by dipping them in a solution of 1 part bleach and 9 parts water or heavily spray them with a disinfectant spray, such as Lysol. After dipping or spraying, wait 20 seconds before using again.

11. A vertical clearance of 3000mm is required above all parking spaces. A vertical clearance of 2100mm is required above all walkways. Trim trees to remove all limbs within these areas.

B. Shrubs and Vines

1. Shrubs and vines shall be kept in a healthy, vigorous condition, free from disease and large concentrations of pests.

2. Shrubs shall be pruned as needed to remove branches that are dead, broken, extending beyond the face of curbs or sidewalks, or are climbing building walls (unless they're intended to climb the wall, such as climbing vines). Formal hedges and topiary shall be regularly pruned to maintain a uniform height and width.
Except as noted previously, allow the shrubs to grow unpruned to their natural sizes!

3. Shrubs uniformly planted in rows, where it is clear the intent was to create a hedge, shall be pruned so as to encourage a hedge. Shrubs in hedges shall be encouraged through pruning to form a dense, continuous, hedge, branching fully to the ground. All other shrubs shall be pruned only as required for safety, visibility, and plant health, and allowed to develop into the natural shapes expected of the plant variety. Do not shear shrubs into topiary (shapes) unless specifically instructed to do so in writing by the owner's authorized representative.

4. Rabbit/Deer proof protection to be fitted to newly planted shrubs.
Manufacturer: Netlon Group Ltd or similar approved.
- Product reference: Treeguard.
- Type: Shelterguard: 600mm 'Tree Guard 5'.
- Material: Plastics mesh, fixed to stake using galvanised staples.
- Size: 0.6m high x 300mm diameter or greater to suit size of shrub.
- Support: Stake: 900x32x32mm (400mm below ground level).
- General: Ensuring that protection methods do not impede natural movement of shrubs or restrict growth.

5. Allow shrubs three (3) months to rejuvenate following a hard frost prior to pruning or replacing.

6. Any shrub found to be dead or missing shall be replaced with plant material of identical species at the landscape maintenance contractor's expense, unless the loss was due to excluded damage. If the loss resulted from excluded damage, replacement will be paid for as additional work. Submit a quote for replacement within two weeks of the loss as outlined.

7. Replacement shrubs shall be at least (450mm) in height when planted, unless otherwise approved by the owner's authorized representative. Place 2 slow-release fertilizer tablets in backfill material, (150mm) deep on opposite sides of the rootball, but not touching the rootball.

8. The cutting blades on pruning shears, clippers, blades, saws, etc. shall be sterilized between every three shrubs to minimize the possibility of spreading disease. When pruning shrubs known or suspected to be diseased, the cutting blades shall be sterilized after each cut. Sterilize blades by dipping them in a solution of 1 part bleach and 9 parts water or heavily spray them with a disinfectant spray. After dipping or spraying, wait 20 seconds before using again.

C. Groundcover

1. Groundcover shall be maintained in a healthy, vigorous growing condition.

2. Any groundcover found to be dead or missing shall be replaced with plant material of identical species at the landscape maintenance contractor's expense, unless the loss was due to excluded damage. If the loss resulted from excluded damage, replacement will be paid for as additional work. Submit a quote for replacement within two weeks of the loss as outlined in the General Requirements section of these specifications. Replacement groundcover shall be planted at (200mm) spacing from buildings to encourage quick coverage. Prior to planting replacement groundcover, the soil shall be tilled to a depth of (150mm) to prepare it for the new plants.

3. Keep groundcover trimmed back from sidewalks, curbs, and paved areas on a weekly basis. Do not create vertical edges when pruning groundcover. Cut the edges at an angle /--\ for a more natural appearance and healthier plants.

4. If regular foot traffic through a planter is preventing the groundcover from reaching full coverage of the soil, contact the owner's authorized representative to discuss options for redirecting the foot traffic. Consider installing pavers, stepping stones, a concrete walk, a gravel path, and/or barriers to redirect pedestrians.
Provide costs for these options to the owner's authorized representative.

D. Fertilizer

1. Foliar applied fertilizer shall be water soluble and non- burning. Formulation shall be 15-30-15 or similar. Apply at manufacturer's maximum recommended concentration for plant type. Saturate the entire foliage of each plant with foliar spray until it runs off.

2. Granular fertilizer shall be 16-16-16 formulation or similar, applied at maximum label rate for plant type and 90 day interval. Water immediately after applying to move the fertilizer into the soil and wash the fertilizer off of plant surfaces.

3. When applying granular fertilizers to drip-irrigated areas, the fertilizer must be washed in by hand or rainfall before turning on the drip system. Running the drip system immediately after application will push the fertilizer away from the emitters, resulting in a high concentration of fertilizer at the edge of the wetted zone. This highly-concentrated fertilizer can kill or damage plants. It is recommended that granular fertilizers be applied to drip-irrigated areas only in early spring, just prior to a moderate rainfall.

4. Itemized receipts for fertilizer and other required soil amendments purchase (or for services of a fertilizer application company) must be submitted to the owner's authorized representative as proof of application. The contractor shall submit the receipts together with the next regular billing. Failure to submit receipts may result in payment delays or partial payment. Receipts must show the name and phone number of the seller and the date of sale. Receipts must also be itemized, showing the total quantity and description of each item. Prices and unrelated purchases may be blacked out.

E. Weed control

1. Weeds in planted areas, sidewalks, curbs, gutters, or pavement shall be removed or killed weekly as the weeds emerge. Weeds shall be removed (not just killed) if they are larger than 2 inches (5 cm) in height or diameter. Dispose of weeds off-site. Pre and post-emergent herbicides may be used at the contractor's option. No additional payments will be made for herbicide applications. The cost of all weed control work shall be included in the contract price for landscape maintenance. Regular maintenance of the mulch or decorative rock layer will help minimize weeds in shrub, groundcover, and Ornamental Grasses areas.

F. Mulch
1. Woodchip mulch layer shall be cared for as needed to create and maintain an even and uniform appearance over the visible soil surface of each planted area.

2. The contractor shall add additional mulch and regularly to maintain a layer no less than (50 mm) deep at all times in bare open soil areas. Decomposition of organic mulch is considered normal wear and tear and replacement of decomposed mulch shall be made by the contractor as part of this contract. Mulch is not required in areas where plant foliage completely covers the soil surface, such that the soil is not visible through the foliage. Note: only (50mm) of mulch is required, however maintaining a deeper layer of mulch greatly reduces the labour and chemicals needed to control weeds, reduces water use, and helps the plants stay healthy.

3. Replacement of large amounts of mulch and/or decorative rock (0.75 cubic metre) which has been stolen, vandalized, or washed away by a single storm may be paid as additional work (To be discussed and agreed with client). Submit a quote for the work as noted in the General Requirements section of these specifications.

4. Any mulch found outside planter areas shall be returned to the planted areas on a weekly (regular) basis.

5. Mulch shall be uniform in colour and appearance, and free of large leaves, large sticks (plus 50mm), or trash. Mulch may be chipped or shredded wood or bark. When replacing existing mulch, use a mulch product that is similar in appearance to that already at the site.

6. In areas of the site where wood-based mulch frequently washes away, submit a quote for replacement of the organic mulch having a similar colour.

G. Lawns (grassed areas within site boundary):
1. Lawns shall be kept in a healthy, vigorous condition, free of disease and pests, except as noted below.

2. Lawn height shall be kept between 40-70mm not exceed at any time

3. Mow, edge and trim lawns weekly or as required to maintain an even, well groomed appearance.

4. Remove visible lawn clippings and dispose of them off-site in a legal manner. The contractor is encouraged to use mulching mowers which cut clippings into small pieces that sift down into the lawn.

5. Weeds shall be controlled in lawn areas as noted above under the weed control section.

6. Any lawn found to be dead or severely yellowed shall be replaced with plant material of identical species at the landscape maintenance contractor’s expense, unless the loss was due to excluded damage. If the loss resulted from excluded damage, replacement will be paid for as additional work. Submit a quote for replacement within two weeks of the loss as outlined in the General Requirements section of these specifications. Replacement sod shall be similar in all respects to the existing grass. Do not seed dead lawn areas, use sod only for replacement, unless directed, in writing, by the owner’s authorized representative.

9 - IRRIGATION (Irrigation system if applicable)

Watering is needed to supplement natural rainfall and maintain plantings in a healthy, stress-free condition. It is the contractor's responsibility to make sure that plants receive adequate water regardless of weather conditions.
An Irrigation Plan must conform to the BS. An Irrigation Plan must also include a system for reporting back to the Authority to confirm implementation of each irrigation operation.
The period over which irrigation is required shall be for at least three full growing seasons. As the root system develops, the frequency of irrigation can be reduced. It is the responsibility of the contractor to conserve water and assure that all watering rules and regulations are followed. Any penalties, fines, or citations for watering ordinance violations shall be paid by the contractor.

1. Trees are required to be watered about twice each week with 40L of water adequate to keep an 800 mm diameter rootball well irrigated, and that 20L of water or less thoroughly moistens a soil ball of 500 mm to 600 mm. BS 8545:2014. The frequency of irrigation is more important than the volume of water given at any one time.

2. Herbaceous and Pernnials: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As necessary to ensure establishment and continued thriving of planting or as required.

3. If an irrigation system is installed additonal hand water may be needed to supplement a permanent system. Failure of the irrigation system to provide full and proper coverage shall not relieve the landscape maintenance contractor of the responsibility to provide adequate irrigation. It is the contractor's responsibility to make sure that a irrigation system is maintained and operates properly if one is installed.

4. The contractor is responsible for the complete operation and maintenance of an irrigation systems except as noted below. The contractor shall examine the irrigation system for damage or malfunction weekly and shall report damage or malfunction to the owner's authorized representative in writing. If the contractor fails to report the broken or malfunctioning irrigation system components within two weeks of the breakage or malfunction, the contractor shall be responsible for all damages resulting from the broken irrigation system component.

5. Adjust watering times each week. Do not overwater plantings. Use multiple-start times and short run times to prevent run-off. Drip systems should be left on for sufficient time to allow for saturation of the root zone. Shorter runs with drip irrigation do not provide sufficient water penetration for healthy root development. Avoid multiple-start times with drip systems if possible. Do not allow run-off from any irrigation.

6. When breakdowns or malfunctions exist, the contractor shall hand water, if necessary, to maintain all plant material in a healthy condition. If the irrigation repairs are major and will be billed as additional work (see items that qualify for additional work payments as outlined below), the labour costs for hand watering may also be submitted for payment as noted in the General Requirements section of these specifications. Do not wait for approval to begin hand watering if it is required to save the plantings.

10 - CLEAN UP AND LITTER REMOVAL

A. Sweep or blow-off all walks, curbs, and gutters weekly. Sweeping of parking bays is not part of this work unless noted otherwise in contract.

1. Do not sweep or blow trash, leaves, clippings, or landscape debris into planters or onto adjacent property. Collect all debris swept or blown from landscape areas and remove from the site.

2. Do not use blowers prior to 7:00 A.M. or after 8:00 P.M. or at any other hours restricted by law. Do not use blowers around parked vehicles to avoid scratching vehicle paint with blowing sand and debris. Blowers may not be used where prohibited by law.

3. All litter shall be removed from sidewalks, gutters, and all planted areas each week. In no case shall trash, litter, or leaves be blown or swept onto the property of others. All trash, litter, leaves, etc. shall be collected, hauled away, and disposed of legally.

4. In addition to removing all litter from sidewalks, gutters, and planted areas, the contractor shall remove and dispose of any large miscellaneous debris or trash in the parking lot. For the purpose of this contract, "large" shall mean items the size of a small beverage cup or larger. The intent of this requirement is that the contractor's workers should take sufficient pride in the appearance of the site that they would pick up any significant litter they come across at the site. Sweeping of the parking lots is not included in the landscape maintenance. All litter shall be removed from planter areas and sidewalks, regardless of the size of the litter.

11 - CHEMICALS, HERBICIDES, PESTICIDES

A. All chemicals shall be used in accordance with label directions and the manufacturer's recommended handling methods. All chemicals shall be handled in accordance with all applicable regulations.

B. Registered chemicals shall be used only on the advice of a qualified, licensed if required, pest control advisor. Nothing in this specification shall be construed to be the advice of, or to substitute for the advice of, a pest control adviser.

C. Pesticides shall not be applied within one hour of the start of operating hours for businesses at the site. In the event that it is not possible to complete the application by one hour prior to business hours (ie; 24 hour operations), applications shall be made at times when customer presence is minimal. Areas to be treated shall be blocked off and warning signs posted.

D. The landscape maintenance contractor shall take precautions to keep persons away from pesticide and herbicide-treated areas until the applied material is fully dry and the treated area is safe for entry. Follow the recommendations of the pesticide manufacturer and all applicable governmental and industry regulations.

12. - COMMUNICATIONS AND REPORTS

A. Regular communication between the contractor and the owner's authorized representative is encouraged.

B. The contractor is encouraged to ask questions, rather than make assumptions.

C. As the landscape matures, some of the maintenance procedures will be eliminated and others may have to be added. For example, as the shrubs mature they will require less fertilizer. Regular communication will eliminate most surprises to the owner of changing maintenance costs, which will vary as the landscape grows. Remember, all changes to these specifications must be approved in writing by the owner's authorized representative.

D. The contractor shall provide the owner's authorized representative with the name and phone number of the contractor's representative for this site. The contractor's representative shall be a person in the employ of the contractor who is familiar with, and regularly updated on, all the contractor's activities at the site. The contractor's representative shall personally perform regular reviews of the contractor's work at the site.

The contractor shall turn in an agreed (Weekly/Monthly) copy of the Maintenance Checklist to the owner's authorized representative as agreed. The checklist copy shall have a check mark by all items completed at the site during the week by the contractor. Any items completed that are not on the checklist shall be noted on the back of the checklist. The checklist shall be dated and contain the name and signature of the contractor's representative for the work at this site.