

10 YEAR LANDSCAPE MAINTENANCE PROGRAMME

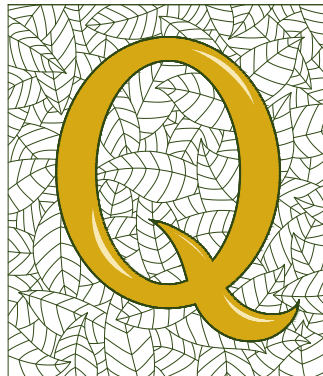
for

PROPOSED LANDSCAPE WORKS

at

BIKE PARK WALES ABERCANAID

4th October 2019



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GENERAL NOTES

1. The following maintenance programme should be read with reference to Peter Quinn Associates' Detailed Landscape Proposals Masterplan (No 19/461/09) and Treescene's Woodland Management Plan. It has been devised to ensure the successful establishment of the proposed landscaping and its subsequent long-term maintenance. It is also intended that long-term maintenance operations will enhance opportunities for flora and fauna throughout the site.
2. It follows a five year cycle and illustrates the first ten years. After year 10, the programme returns to year 6 and repeats thereafter. Please note that the timing of operations on a two-year or three-year cycle will need to be adjusted every 5 years to conform with the schedules.
3. Operations cover maintenance of areas and stock planted as part of the landscape works outlined in the Detailed Landscape Proposals Masterplan and associated areas. They do not cover hard landscape or any other features or areas not specifically included in this document.

The programme is divided into **Specification** and **Schedules of Works**.

The **Specification** is divided into **A. Establishment Operations**, such as watering, which will generally not be required after the first five years following planting, and **B. Regular Operations**, such as litter collection, which will be required in perpetuity.

The **Schedules of Works** are presented as tables which specify the timing and frequency of all maintenance works.

4. Estimates have been made for the timings of some operations which cannot properly be assessed at present. Adjustments should be made to the programme as appropriate (see "Landscape Inspection" in "Regular Operations" below).
5. All materials and stock used in maintenance operations should match the original specification (except in the case of plants succumbing to transmittable diseases - see "Replacement Planting" in "Establishment Operations" below). All operations to be carried out by appropriate and suitably experienced and qualified staff with appropriate equipment and protection.
6. Any faults which present a significant danger to be isolated from users upon discovery.
7. All works to be to the relevant British or European Standards whichever has precedence.
8. All timings are made assuming commencement of maintenance operations in January. The programme should be adjusted to take account of any variation from this assumed date.
9. Arboricultural inspections to be carried out by an Arboriculturalist. Landscape inspections to be carried out by a Landscape Architect or Landscape Manager. Landscape maintenance staff are to carry out all other inspections in this programme where the inspector is not specifically identified by profession. Maintenance staff should report to supervisors any problem relevant to maintenance, users' safety, aesthetics or plant health.
10. Herbicide should not be used on site.
11. The programme has been written to be used in conjunction with the JCLI Landscape Maintenance Works Contract 2017.

SPECIFICATION

A. ESTABLISHMENT OPERATIONS

1. Weedkill: establishment

Do not use herbicides. All weeds within mass planting beds to be killed with flame gun directed at the base of each weed. In addition, a 1m diameter circle around all feathered (newly-planted) trees in grass is also to be kept clear of **all** weeds (including grass) with flame gun directed at the base of each weed. Use metal guard to avoid damage to tree and shrub stems.

Japanese Knotweed found anywhere on site should be dealt with in accordance with the *Knotweed Code of Practice* (www.environment-agency.gov.uk).

Allow for **eleven** visits in the **first** and **second** growing seasons after planting as follows:

Mid March
End of March Mid
April End of
April Mid May
End of May Mid
June Mid July
Mid August Mid
September Mid
October

Allow for **five** visits in the **third** growing season after planting. Visits to take place in the middle of the months of March, April, May, June and September.

2. Watering: shrubs

Water each newly planted transplant with 10 litres of water during dry spells (periods with no significant rain for >21 days) in the first two growing seasons (March-October) after planting. Repeat watering every 3 days until significant rain has fallen. Use water from site hose points (allowing for use of bowser for distribution across site).

3. Watering: feathered trees

Water each newly-planted feathered trees with 20 litres of water during dry spells (periods with no significant rain for >21 days) in the first three growing seasons (March-October) after planting. Repeat watering every 3 days until significant rain has fallen.

4. Top up mulch

In March of the second year after planting, top-up mulch to 100mm deep across entire area of all mass planting beds and in a circle of 600mm diameter around each tree individually planted beyond the mass planting beds.

5. Firming-in

Check and firm-in all newly planted stock twice per year in first two years after planting (in late March and late October) to firm roots loosened by wind, frost and dry-weather cracking of topsoil.

6. Replacement planting

Inspect all planting areas in the September of years 2 to 5.

The following December, remove any dead or dying stock. Replace with plants of the same species/variety except where plants have died of a transmittable or unavoidable disease or pest or from waterlogging.

Where plants have died from a transmittable disease, replace with stock from a different genus with a similar growth habit.

Where shrubs have been killed by waterlogging, do not replant until problem has been solved at source. Where waterlogging cannot practically be resolved, replacement planting should be chosen from native species tolerant of waterlogged ground (*Alnus glutinosa*, *Quercus robur*).

When plants have been killed by browsing animals, replacement planting should be protected by guards appropriate to the browsing animal. Alternatively, stock may be replaced with a species growing within the same bed that has not been subject to browsing. The replacement species should be one that will grow to around the same mature size.

See also "Landscape Inspection" item in Section B. "Regular Operations" below.

7. Tree fixings

In March & September of each of the first 3 years after planting check tree ties & supporting woodwork for breakages, looseness and/or chaffing. Replace, tighten or loosen as necessary.

8. Tree stakes - removal

Remove all tree stakes and associated ties in the December of the third year after planting.

9. Temporary fencing - inspection and repair

Inspect all temporary fencing (if installed: see "Landscape Inspection" in "B. Regular Operations" below) in the June and December of each of the first four years after planting and once in the June of the fifth year and repair or replace as necessary to maintain function. Remove if problem has clearly been solved.

All necessary repairs to take place within two weeks of inspection.

10. Temporary fencing - removal

Remove all temporary fencing in the fifth December after planting.

B. REGULAR OPERATIONS

11. Litter Pick

Irrespective of the source, collect and remove to tip all litter and fly-tipping from all areas including litter caught in shrubs, trees and fences. Fallen leaves cleared as part of litter pick should not be removed to tip but spread (in a layer of max. depth 150mm) amongst wooded areas or new mass planting beds.

Allow for 26 visits as follows:

<i>Month</i>	<i>Frequency</i>
<i>January (1st week)</i>	<i>1</i>
<i>February (1st week)</i>	<i>1</i>
<i>March (1st wk)</i>	<i>1</i>
<i>April (1st and 3rd week)</i>	<i>2</i>
<i>May (1st and 3rd week)</i>	<i>2</i>
<i>June (weekly)</i>	<i>4</i>
<i>July (weekly)</i>	<i>4</i>
<i>August (weekly)</i>	<i>4</i>
<i>September (1st and 3rd week)</i>	<i>2</i>
<i>October (1st and 3rd week)</i>	<i>2</i>
<i>November (1st and 3rd week)</i>	<i>2</i>
<i>December (1st week)</i>	<i>1</i>

Fly-tipping to be removed within one week of discovery.

12. Brush cutting: steeply sloping areas of wildflower meadow

Cut to ground shrubs and trees growing on areas labelled as “meadow”. Remove cuttings and dispose of within wooded areas.

Brush cutting to be carried out once every three years in January starting in the second year after commencement of maintenance programme.

In time it is likely that a tussocky structure will form across the meadow areas. This should not be removed as it creates important habitat for wildlife.

13. Weed removal

Himalayan Balsam, Giant Hogweed and Japanese Knotweed growing anywhere within the site to be killed with flame gun or removed by hand to tip off-site if seeds have set.

Allow for two visits per year in April and late June from the fourth year onwards.

Note:

Once the weedkilling operations laid out in the "Establishment Operations" section above are complete, there should be a presumption against weeding: weeds that are not pernicious and do not threaten agricultural land that are found growing within planting beds should be left to grow, as these generally do not lead to significant problems and may be important for wildlife. Such weeds should only be killed where they are either visually unattractive (eg covering fencing), threaten trees, shrubs or other features (eg growing through hard surfacing) or pose a hazard to users or wildlife. Unless they interfere with passage along footpaths, thistles and nettles, often classed as undesirable, should be left to grow as they are very important for wildlife.

In order to prevent shrub and tree fatalities within established planting, any necessary weeding should be carried out either manually or with flame guns (with metal guard to avoid damage to tree and shrub stems. It should not be carried out as a routine operation as this may lead to unsightly bare areas.

Herbicide should not be used.

14. Pest control

Check all stock for transmittable diseases and pests twice per year (May and September). Allow for control of pests by pruning or removal of entire plant to tip and replacement.

15. Tree & shrub pruning

Cut back trees and shrubs that obstruct or interfere with passage along roads, paths and tracks.

Allow for two visits per year (September and February).

Note:

There should be a presumption against cutting back shrubs and trees. Where growth does not significantly interfere with passage or present a significant hazard, then plants should not be cut. The soft edges produced by such growth will complement the appearance and character of the bike centre.

Where attention is necessary, a vertical cut along the bed boundary line should be avoided. Shrubs should be cut to slope back at an angle of between 30° and 60° from vertical to encourage attractive, dense, even and steady re-growth.

Where a single branch is causing a problem then that branch should be removed as close to the main stem as possible.

Tree branches should only be removed where they grow lower than 3m above adjacent pedestrian/vehicular areas. Branches to be removed should be cut back to the branch collar at the main stem or to the branch collar on a suitable large branch. No cutting of trees and shrubs should take place in the nesting season (spring and summer).

Debris from tree and shrub works should be used of on-site as follows:

Small branches (<25mm diameter) should be piled in discrete areas within woodland and mass planting beds more than 5m from paths, drives and parking areas. Where possible branches should be compacted by trampling to provide dense nesting habitat. Only where the volume of small branches is excessive and causes problems which affect other trees, wildlife, safety or access should branches be chipped. Debris so produced should be piled (away from access and parking as above) rather than spread. Piles should not exceed 1m in height and each individual pile should not cover more than 4sqm.

Large branches (>24mm diameter) should be cut into lengths no less than 2.5m long and piled or cut into lengths no less than 1m long and used to create hibernacula (as per the Detailed Landscape Proposals Masterplan) to enrich habitat for wildlife.

16. Tree inspection: general

All trees (including those planted as part of the development and those previously established on the site within the area of maintenance) to be inspected from the ground in January every two years starting in the first year after commencement of maintenance operations by a suitably qualified person with a working knowledge of trees and their defects.

In addition, extraordinary inspections to be carried out after gales (mean wind speed in excess of 37 knots/42mph), during and after prolonged drought (once a hose-pipe ban has been enforced in the area) and after any reported incident likely to significantly affect tree health or general safety (vehicle damage, fire, serious disease outbreaks etc).

An arboriculturalist should be commissioned to inspect and report on any large branches or trees which appear to be significantly damaged, diseased or unstable. Any works recommended by the arboriculturalist are to be carried out by local-authority-approved tree surgeons. Works to smaller trees and branches may be carried out by suitably qualified landscape maintenance staff.

Branches growing towards and very close to buildings to be cut back to give 1m of clearance.

Trees should not be "lopped" or "topped" as this is likely to produce very rapid and dense growth in subsequent seasons and lead to an imbalanced crown.

Branches touching aerial cables to be pruned to prevent damage to cables. Trees should not be "lopped" or "topped" below cables. Healthy branches growing above cables should be retained as the shade produced will help reduce the vigour of re-growth around the cables.

All works to be to BS 3998 (2010) "Recommendations for Tree Work". All works to be carried out in the February following inspection.

Review legislation and guidelines annually to ensure that nature and frequency of inspections are up-to-date.

17. Mature tree inspection: arboriculturalist

All mature trees (i.e. those with a trunk diameter in excess of 100mm at 1.3m above ground) to be thoroughly inspected by an arboriculturalist in January every two years starting in the second year after commencement of maintenance operations.

Inspection should report on any significant risk to users, residents and property, rot, storm damage, disease, pests, dieback, vandalism, interference from adjacent structures or any other matter which may compromise the health or structural stability of the tree. Aerial inspection and other invasive procedures to be carried out as judged appropriate by the arboriculturalist.

Arboriculturalist should also report on actual and likely nuisance including damage or potential damage to neighbouring properties. Everyday minor “nuisance” such as leaf litter should not be recorded.

Arboriculturalist should also report any works apparent within and adjacent to woodland areas judged likely to significantly affect drainage, root zone, stability and any other factor likely to negatively affect the trees.

Any works recommended by the arboriculturalist are to be carried out by a local-authority-approved tree surgeon within one month of the inspection date (i.e. before the end of February). Works to smaller trees and branches may be carried out by landscape maintenance staff.

Any recommendations for work should bear in mind the twin goals of amenity and wildlife benefit. Felling or removal of entire trees should be avoided in almost all cases except where disease is likely to spread to other trees. Overmature or dead trees presenting an actual danger to users should have unstable or weak branches removed (whilst retaining the main trunk and all other large stable branches). The remaining trunk and large branches should only be felled when a real danger to users or adjacent properties has developed or is very likely to develop. Felled trunks and large branches should be left where they fall unless this presents a danger or inconvenience to users, property or the health of other trees.

See notes on disposal of branches in “*Tree and Shrub Pruning*” above.

18. Landscape inspection

The site should be inspected and the landscape maintenance reviewed by a Landscape Architect or Landscape Manager once every five years in June, starting in the second summer after commencement of the maintenance programme. Timings, quantities and operations should be adjusted as appropriate.

Landscape inspection should recommend works (including replanting) necessary to ensure enhancement of wildlife value and continuation of cover in meadow, woodland and mass planting beds. Any recommended planting to be carried out in November. Choice of species should be *guided* by the present species mix. Any new planting should be of native, local provenance, species (see also "Replacement Planting" in "Establishment Operations" above).

Self-seeding of shrubs and trees should be allowed within woodland and mass planting beds but monitored to ensure that one species (such as sycamore or goat willow) does not become dominant. A permeable but complex woodland structure should be encouraged with a pattern of light and shade and trees and shrubs of different heights, habits and ages.

The landscape inspector should recommend removal of trees, shrubs or herbaceous plants which are judged to be over-dominant or otherwise detrimental to wildlife or the woodland in general.

The landscape inspector should also recommend erection of nest boxes to replace existing boxes.

Landscape inspector to recommend inspection by ecologist when deemed necessary.

Where short-cutting, bad parking or other unanticipated activity is causing significant damage to plants, temporary fencing should be erected or affected area re-designed and re-modelled by Landscape Architect as appropriate.

19. Drainage: planting beds and grassed areas

Landscape maintenance staff to inspect all areas of planting and meadow once per year for problems with drainage. Inspections should be made in March and after periods of heavy and sustained rain.

Refer drainage problems to Landscape Architect or Landscape Manager.

Do not use a rotavator to tackle poor drainage as this is almost certain to exacerbate the problem.

20. Insurances

Ensure that the site, all staff, all users, all vehicles and other equipment are covered by an appropriate insurance policy which indemnifies the owner against all claims made against it in relation to maintenance operations carried out on the site.

Note:

Recommendations for woodland maintenance described in Treescene's Woodland Management Plan and subsequent amendments of that plan, take precedence over all operations described in this document.

SCHEDULE OF WORKS

YEAR 1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. Establishment operations												
Weedkill: establishment			2	2	2	1	1	1	1	1		
Watering: shrubs			◆	◆	◆	◆	◆	◆	◆	◆		
Watering: trees			◆	◆	◆	◆	◆	◆	◆	◆		
Firming-in			1							1		
Tree fixings			1						1			
Temp. fencing inspection/repair						1						1
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Pest control					1				1			
Tree & shrub pruning		1							1			
Tree inspection: general	1											
Drainage: planting & grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 2

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. Establishment operations												
Weedkill: establishment			2	2	2	1	1	1	1	1		
Watering: shrubs			◆	◆	◆	◆	◆	◆	◆	◆		
Watering: trees			◆	◆	◆	◆	◆	◆	◆	◆		
Firming-in			1							1		
Replacement planting									1			◆
Mulch			1									
Tree fixings			1						1			
Temp. fencing inspection/repair						1						1
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Brush cutting: meadow	1											
Pest control					1				1			
Tree & shrub pruning		1							1			
Mature tree inspection: arbo	1											
Landscape inspection						1						
Drainage: planting & grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 3

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. Establishment operations												
Weedkill: establishment			1	1	1	1			1			
Watering: trees			◆	◆	◆	◆	◆	◆	◆	◆		
Replacement planting									1			◆
Tree fixings			1						1			
Tree stakes removal												1
Temp. fencing inspection/repair						1						1
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Pest control					1				1			
Tree & shrub pruning		1							1			
Tree inspection: general	1											
Drainage: planting & grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 4

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. Establishment operations												
Replacement planting									1			◆
Temporary fencing inspection/repair						1						1
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Weed removal				1		1						
Pest control					1				1			
Tree & shrub pruning		1							1			
Mature tree inspection: arbo	1											
Drainage: planting and grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 5

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. Establishment operations												
Replacement planting									1			◆
Temporary fencing inspection/repair						1						
Temporary fencing removal												1
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Brush cutting: meadow	1											
Weed removal				1		1						
Pest control					1				1			
Tree & shrub pruning		1							1			
Tree inspection: general	1											
Drainage: planting and grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 6

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Weed removal				1		1						
Pest control					1				1			
Tree & shrub pruning		1							1			
Mature tree inspection: arbo	1											
Landscape inspection						1						
Drainage: planting and grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 7

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Weed removal				1		1						
Pest control					1				1			
Tree & shrub pruning		1							1			
Tree inspection: general	1											
Drainage: planting and grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 8

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Brush cutting: meadow	1											
Weed removal				1		1						
Pest control					1				1			
Tree & shrub pruning		1							1			
Mature tree inspection: arbo	1											
Drainage: planting and grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 9

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Weed removal				1		1						
Pest control					1				1			
Tree & shrub pruning		1							1			
Tree inspection: general	1											
Drainage: planting and grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

YEAR 10

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
B. Regular Operations												
Litter pick	1	1	1	2	2	4	4	4	2	2	2	1
Weed removal				1		1						
Pest control					1				1			
Tree & shrub pruning		1							1			
Mature tree inspection: arbo	1											
Drainage: planting and grass	◆	◆	1	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insurances	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆