

LANDSCAPE MAINTENANCE AND MANAGEMENT PLAN

For

NTT Communications Corporation

at

Land at Londoneast-uk Business & Technical Park

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MAINTENANCE AND MANAGEMENT STATEMENT

This Landscape Maintenance and Management Plan has been prepared on behalf NTT Communications Corporation in support of a proposed development at Land at Londoneast-uk Business & Technical Park, Yewtree Avenue, Dagenham RM10 7XS.

The description of the development is as follows:

“Erection of two data centre buildings (B8 Use Class) with ancillary plant, offices, gatehouse, electrical substations, fuel storage, car parking, site fencing, landscaping and other associated works.”

The establishment and future success of the soft landscape is largely dependent on the standard and frequency of the subsequent maintenance and management it receives. A maintenance and management regime will therefore be adopted for the site throughout the development period and thereafter drawing on the principles set out below.

It is intended that the overall management objective for the development will build on the principles of the landscape design statement to achieve a robust landscape that successfully assimilates into the local area and is high in ecological interest.

The aims and objectives of the landscape maintenance and management will be:

- a) To ensure the successful establishment and continued growth through to maturity of the soft landscape scheme as shown on the following Barry Chinn Associates Limited drawings (or any subsequent revision thereof):

1798-17-01C Landscape Masterplan

1798-17-02B Landscape Cross Sections

- b) To secure a long term future for newly planted trees, shrub, and thicket planting areas with particular emphasis upon achieving enhancement of ecological potential, increased biodiversity, nature conservation and connectivity.
- c) To achieve rapid establishment of the plant material with resultant total ground cover, thereby suppressing weed growth and reducing maintenance requirements.
- d) To retain the natural growth, form and maximise the seasonal potential of individual species by the appropriate pruning methods and ensure that formal hedges are maintained to an even, regular form.
- e) To manage the landscape in a manner commensurate with the safety of site users by maintaining visibility splays, maintaining good surveillance and removing odead, dying or diseased tree branches that could cause an obstruction or hazard.
- f) To create an attractive welcoming environment for the proposed development, providing visual amenity and wellbeing to both users and visitors to the site.

Note: The soft landscape scheme as shown on BCA drawing 1798-17-01C (or any subsequent revisions thereof) will be implemented in conjunction with Phase 1 of the proposed development.

The soft landscape as shown on BCA drawings 1798-17-01 and 02 will, for the initial 1 year after Practical Completion be maintained by the Landscape Contractor responsible for the implementation of the works. The contract will include a defects liability clause to ensure replacement planting is carried out and successful establishment achieved. Refer to appendix A for the schedule of maintenance for year 1.

Thereafter maintenance contracts will be organised by the persons responsible for estate facilities management on an annual basis. Refer to Appendix B for matrix of maintenance operations envisaged over a 10 year period. These will be reviewed at regular intervals to respond to natural or man made changes in the environment which affect the landscape types (eg. prevailing weather conditions, tree disease, vandalism, etc).

APPENDIX A

Year 1 Maintenance Schedule

	Quantity m ²	Unit Cost £	Total Cost £
<p>MAINTENANCE</p> <p>During the twelve month period after completion.</p> <p>Note: Allow for twenty one maintenance visits. A visit shall be defined as the period of time required by the Contractor to carry out all maintenance items specified in the Schedule of work below. (18no visits within the growing season and 3 within the dormant season)</p>			
<p>GENERAL TO ALL AREAS</p>			
<p>a Tidy up areas removing rubbish, litter, etc., from all landscape areas. Repeat at each maintenance visit.</p>	Item		
<p>PROVISIONAL</p>			
<p>b Supply and apply a translocated herbicide to weed growth on car park and footpath surfaces. Once only.</p>	Item		
<p>c Treat pests and diseases as necessary. Pesticide use is to be considered only as a last resort. If used pesticides are to be applied strictly in accordance with current approved codes and statutory requirements.</p>	Item		
<p>d Allow for watering all grass and plant material as necessary to ensure establishment and maintain healthy growth.</p>	Item		
<p>e Check that the plant material is firmly planted and firm in where required. Repeat at each maintenance visit.</p>	Item		
<p>f Prune dead, dying or diseased wood from plant material.</p>	Item		
<p>ORNAMENTAL SHRUB, GROUND COVER & HEDGE PLANTING AREAS</p>			
<p>g Keep ornamental shrub areas clear of weed growth by hand weeding or spot herbicide treatment as appropriate. Twelve times.</p>	m ² (x12)		
<p>h Apply a slow release fertilizer, Enmag CRF or similar approved, composition NPK 11 + 22 + 9 + 6.0% Mg, to planted areas at a rate of 30 gms / m². Once only.</p>	m ²		
<p>i Edge up planted areas to maintain soil level 25mm below adjacent hard surfaces and kerbs. Any soil washed on to hard surfaces to be cleaned off. Repeat at each maintenance visit.</p>	Item (x21)		
<p>j Prune shrubs if required to prevent invasive species smothering less aggressive species and to prevent shrubs overhanging footpaths or other areas of hard paving</p>	Item		
<p>Carried forward</p>		£	

MAINTENANCE/continued		Quantity m²	Unit Cost £	Total Cost £
Brought forward from previous page			£	
ORNAMENTAL SHRUB, GROUND COVER & HEDGE PLANTING AREAS (Continued)				
a	Check and repair damage to shelterguards on hedgerow and hedge planting. Four times during the maintenance period.	Item (x4)		
TREE PLANTING Check adjust and replace, underground guys, guards, stakes and ties as necessary. Prune, water and feed as necessary.				
b	Semi-mature trees	no.		
c	Extra heavy standard trees	no.		
d	Heavy standard trees	no.		
e	Feathered trees	no.		
f	Keep stem at the base of all trees planted in grass or wildflower areas free of all weed growth to a diameter of 800mm	no.		
THICKET PLANTING				
g	Keep woodland edge and woodland planted areas clear of weed growth by herbicide treatment. Remove weed growth within shelterguards by hand. Four times.	m ² (x4)		
h	Check and repair damage to shelterguards. Four times during the maintenance period.	Item (x4)		
CLOSE MOWN GRASS AREAS				
<u>March to mid-April</u>				
i	Two grass cut down to 30mm and two edge trimmings.	m ² (x2)		
j	Supply and spread Scotts spring/summer lawn fertilizer (9-7-7) at a rate of 70gms/m ²	m ²		
<u>Mid-April to September</u>				
k	Fourteen grass cuts down to 19mm and fourteen edge trimmings.	m ² (x14)		
Carried forward			£	

MAINTENANCE/continued		Quantity m²	Unit Cost £	Total Cost £
Brought forward from previous page			£	
CLOSE MOWN GRASS AREAS (Continued)				
<u>October, November</u>				
a	Two grass cuts down to 30mm and two edge trimmings.	m ² (x2)		
b	Supply and spread Scotts autumn lawn fertilizer (4-12-12) at a rate of 70gms/ m ² during early October.	m ²		
c	Shape grass edge with half moon spade. Twice only.	Item (x2)		
Note: At each grass cut (18 total) excessive arisings shall be removed from site.				
d	Apply selective herbicide to all grass areas in accordance with manufacturer's specification.	m ²		
WILD FLORA AREAS				
NB The maintenance regime for Wild Flora areas will depend on the species used and should be in accordance with seed supplier's and ecologist's recommendations.				
e	<u>March/ April</u> PROVISIONAL First cut down to 50mm	m ² (x1)		
f	<u>April/ September</u> PROVISIONAL One cut every two months (2 total) to 50mm when sward has reached 150mm	m ² (x2)		
g	<u>September / October</u> PROVISIONAL One cut down to 50mm when sward has reached 150mm	m ² (x1)		
h	Spot herbicide treat aggressive perennial weeds in Wild Flora areas as necessary	Item		
Note: At each wild flora cut excessive arisings shall be removed from site.				
Initial Twelve Months Maintenance Summary			£	

APPENDIX B

Maintenance Schedule Matrix for 10 Year Period

LANDSCAPE MANAGEMENT SCHEDULE OF WORK MATRIX - 10 YEAR PERIOD

ITEM OF WORK	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
GENERAL	See appendix A									
Tidy up areas removing rubbish, litter, etc, from planted and grass areas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Treat pests and disease as necessary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check plant material is firmly planted, firm in and water where required.	✓	✓	✓							
Dead, dying or diseased wood to be pruned out	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Removal of diseased or dead plants with replacements as appropriate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TREE PLANTING										
Check, adjust, replace stakes and ties as necessary. Remove stakes after approximately 3 years if appropriate. Prune, water and feed as necessary	✓	✓	✓	✓	✓					
Remedial tree surgery as necessary to remove any dead, dying or diseased branches and to allow the tree to achieve full stature. All works to be carried out by an Arboricultural Association approved contractor in accordance with BS3998: Recommendations for Tree Work	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SHRUB AND THICKET PLANTED AREAS										
Weed growth to be controlled by mechanical and herbicidal means:										
Ornamental shrub and indigenous hedge planting	12 visits	12 visits	12 visits	8 visits	8 visits	8 visits	5 visits	5 visits	5 visits	5 visits
Thicket planting	4 visits	4 visits	4 visits	4 visits	2 visits	2 visits	2 visits	2 visits	2 visits	2 visits

10 YEAR PERIOD LANDSCAPE MANAGEMENT SCHEDULE OF WORK MATRIX (continued)

ITEM OF WORK	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
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SHRUB AND THICKET PLANTED AREAS (continued)

Prune shrubs as necessary to prevent invasive species smothering less aggressive species and to prevent shrubs overhanging footpaths and other areas of hard paving	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Water all ornamental shrubs as necessary to maintain healthy growth	✓	✓	✓							
Fertilizer application as appropriate to ensure establishment of planting	✓		✓							
Edge up planted areas to maintain soil level 25mm below adjacent hard surfaces and kerbs. Any soil wash onto hard surfaces to be cleaned off	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Thicket mix planting to be managed to ultimately achieve a tree canopy with understorey. A gradual development of a diverse age structure should be established over a period of time by the use of a regime of selective thinning, pruning and coppicing.					1/3 of thicket plants		1/3 of thicket plants		1/3 of thicket plants	

WILD FLORA AREAS

Grass cutting. Year 1: see appendix A for timing and height of cuts (4no in first year) Year 2 onwards: First cut down to 75mm March / April second cut down to 75mm after flowering September / October	4 cuts	2 cuts	2 cuts	2 cuts	2 cuts	2 cuts	2 cuts	2 cuts	2 cuts	2 cuts
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