

MANOR FARM
DENVILLES
HAVANT

LANDSCAPE
MANAGEMENT
AND
MAINTENANCE
PLAN

Prepared by
ACD Chartered
Landscape Architects

for



BARRATT
HOMES

generator

ACD

Ecology

Arboriculture

Landscape Architecture

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PROPOSED LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN FOR MANOR FARM, DENVILLES, HAVANT

1.0 OBJECTIVES

- 1.1 To ensure the successful planting operations, establishment and continued healthy growth through to maturity of the Trees, Shrubs and Grass.
- 1.2 To ensure the continued health and vigour of the existing trees and retained grassed areas.
- 1.3 To achieve a clean, tidy condition and appearance of all external areas.

2.0 BACKGROUND

- 2.1 ACD Landscape Architects were commissioned in 2012 to prepare the following documentation:
 - Updated LVIA
 - OPEN SPACE AND PLAY FACILITIES REPORT
 - LANDSCAPE MASTERPLAN
 - DETAILED LANDSCAPE PROPOSALS
 - LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN
 - LANDSCAPE SECTIONS
 - OPEN SPACE PROPOSALS
 -
- 2.2 The controlling Authority is Havant Borough Council who should be consulted on any matters relating to existing trees and the approved ACD detailed landscape proposals for the scheme.

Havant Borough Council
Public Service Plaza
Civic Centre Road
Havant
Hampshire, PO9 2AX

3.0 PRELIMINARIES

3.1 Defects Liability: Any plants found to be defective during the five year Defect Liability period as a result of:

- failure
- poor materials
- lack of vigour
- being not in accordance with the specification

shall be replaced immediately, or in the next planting season, by the contractor at his own cost.

3.2 Failures of Plants (Pre-practical Completion): Any trees, shrubs, other plants other than those found to be missing or maliciously damaged which are found to be defective at practical completion of the entire project shall be replaced by the Contractor entirely at his own cost.

3.3 Malicious Damage or Theft prior to Practical Completion: All loss or damage arising from theft or malicious damage prior to practical completion of the entire project shall be made good by the Contractor at his own expense.

3.4 Post Practical Completion: The maintenance of trees, shrubs and grasslands after the date of practical completion will be carried out by the Contractor until the responsibility is transferred to the new owners or by the appointed management company.

3.5 Any plants found to be defective following the five year Defect Liability period as a result of:

- failure
- poor materials
- lack of vigour
- being not in accordance with the specification

shall be replaced immediately, or in the next planting season, by the Management Company.

3.6 Replacement of plants shall take place as many times as is necessary in order to maintain a complete cover of plants and to maintain the scheme as designed by the Architect, and within the correct season for the type of plant, tree, shrub and grassland mix.

4.0 GENERAL MAINTENANCE

- 4.1 The landscape shall be the responsibility of the domestic owners, the client and their appointed Management Company the agreement for which shall be set up by the Developer, who shall confirm in writing to the Principle Planning Officer of Havant Borough Council when the maintenance agreement is completed and is operative.
- 4.2 Following installation and after the defects liability, all areas of land will be maintained in perpetuity by the management company or the domestic owners.
- 4.3 The Developer shall ensure that any landscape contractor employed by the developer shall carry out the periodic maintenance of all planted areas, other than any areas for which the appointed Management Company becomes responsible during the said Maintenance Period. Inspection checks shall be carried out at monthly intervals and the appropriate work carried out.
- 4.4 The Developer shall ensure that any landscape contractor employed by the developer shall carry out in all areas any shrub, tree, grass and other plants replacements that may be necessary for the first five years of the defects liability period.
- 4.5 The Management Company shall be responsible for all periodic maintenance and replacement thereafter for all planted areas to which its management agreement relates, and shall ensure that any landscape contractor employed by it carries out periodic maintenance of all such areas in accordance with the general horticultural schedules below. Inspection checks shall be carried out by a competent person, either a member of BALI or the LI, acting for the Management Company, at minimum monthly intervals and the appropriate work carried out.
- 4.6 No existing trees, shrubs or grass shall be removed or cut without specific instructions from the Contract Administrator and written agreement of the Local Planning Authority Tree Officer. Existing trees are to be retained, protected and undisturbed throughout the contract.

5.0 AMENITY GRASS – Turfed Areas

- 5.1 Areas directly to the front and flat areas of rear gardens to the new properties will be laid to an amenity grade turf. This is due to the potential for heavy use by the new occupants.
- 5.2 Grass shall be cut during the growing season (generally April-October) using a sharp cutter to leave about 30-35mm of growth and remove arisings from site.
Grass will be cut at intervals of not more than 10-14 days depending on growing conditions. Arisings shall be collected and carted away. A dressing of prepared fine fishmeal shall be applied at the rate of 60gms/m squared after the second mowing and the arisings of the cut following are to be allowed to fly.
- 5.3 The sward shall be maintained weed free by an annual application of M/s. May & Baker Ltd 'Actrilawn' selective weed-killer or other equal and approved as necessary.
- 5.4 Grassed edges to planted areas to be trimmed to maintain a clear smooth edge to planted beds; strim edges elsewhere but not against trees; spike annually in October.
- 5.5 Should bare patches of grass develop, area is to be cultivated to 150mm and then seeded with amenity grass seed. To be cross-sown in two directions at right angles to each other, (half the seed being used in each direction) at the rate of 35 gm per square meter and the ground lightly raked over on a still dry day when the top 25mm of soil is dry. Use 'A22 Low maintenance' mix as supplied by British Seed Houses, or similar and approved by Local Planning Authority. British Seed Houses tel: 01522 868714.

General

- 5.6 Grassed areas beyond the boundaries of domestic ownership will be maintained in perpetuity by the management company/ies.
- 5.7 This management plan should be made available to the new owners to help outline the principles of the retained habitats and encourage the future management of these areas in perpetuity.

6.0 PROPOSED SHRUB AND SPECIMEN PLANTING

- 6.1 All shrubs beyond the boundaries of domestic ownership will be maintained in perpetuity by the management company/ies.
- 6.2 The density of planting will require that all weeding is carried out by hand, using the appropriate tools. All resultant material should be removed from site.
- 6.3 The management company is responsible for litter picking in those areas that it manages.
- 6.4 All plants shall be inspected monthly for wind firmness and firmed as necessary at the same time. Stakes shall likewise be checked for firmness and all plant ties inspected and made good if required.
- 6.5 All plants shall be watered as may be required to maintain healthy growth following planting, during the maintenance period and subsequently in cases of extreme drought. The management company is to provide a bowser for watering which should be applied at a rate of at least 3Ltr each, Grass 5Ltr's/m².

Following five consecutive days of no rainfall, during the months of June to August watering should be carried out twice a week until the onset of natural rainfall.

Any failures due to drought shall be replaced by the management company at their own cost.

- 6.6 All planted areas including trees shall be given an application of an approved top dressing at the rate of 40 gm per sq. metre in May. This should be in slow release form e.g. Enmag or similar. Trees should be top dressed with an additional mulch of peat substitute (NOT PEAT), which should contain a greater concentration of the slow release top dressing agent, at the rate of 80gm/m² or an equivalent system such as Osmacote 'Grotabs'. This should be worked lightly into the soil, without disturbing the roots, before the bark mulch is re-spread.
- 6.7 Shrubs shall be maintained in a balanced shape and shall be annually pruned to allow for this. Any growth which will obscure windows, signs or sight-lines shall be removed. Once established, any support canes shall be removed from the shrubs. Trailing and climbing material shall be assisted in its growth by securing growing leaders where necessary.
- 6.8 Groundcover planting species in visibility splays that have been specified so should be maintained to a height of between 500mm - 600mm in height to avoid interference with visibility.
- 6.9 The bark mulch should be maintained at an even spread, 75mm deep, of consistent thickness, to ensure that it is effective as a weed suppressant and moisture conserver. Following any maintenance operations and on a bi-annual basis, the mulch shall be supplemented to allow for any material which may have been lost.
- 6.10 No plant substitutions to be made without the prior written agreement of the Local Authority Landscape Section.

- 6.11 Shrub planting to the pumping station should be maintained in a balanced shape and at appropriate height to ensure effective screening.
- 6.12 Proposed ornamental shrub planting along the roadside within the Public Open Space to be maintained at 0.6m to ensure natural surveillance.

7.0 PROPOSED HEDGES

- 7.1 Proposed boundary and mixed native hedge planting to be maintained at 1.8m, cut annually in autumn to avoid period between 1 March and 31 July—the main nesting season for birds. Cuttings to be removed from site.
- 7.2 Proposed ornamental roadside hedges to be maintained at 1m.
- 7.3 Proposed ornamental hedges to be maintained at 1.2m, cut after flowering has finished, outside of nesting seasons so as not to disturb wildlife. Cuttings to be removed from site.
- 7.4 Hedges to be planted in double staggered rows at 50cm centres. Plants to be allowed to grow to 20-30cm above intended height and then clipped into shape. Lateral growth to be trimmed at 1m wide, ensuring that growth does not obstruct footpaths.

8.0 EXISTING HEDGEROWS

- 8.1 Trimming operations are to be undertaken to avoid period between 1 March and 31 July– the main nesting season for birds.
- 8.2 Pruning Generally. Prune hedgerows in accordance with good horticultural and arboricultural practice. Do not damage or tear the stem or bark when removing branches. Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance. Use clean sharp secateurs, hand saws or other approved tools.
- 8.3 Pruning operations are to be undertaken on a three year cycle in January or February, or as instructed by Council. Tree specimens within hedgerows are left to retain their natural form.
- 8.4 Use of mechanical cutters will be permitted, provided that tree species within the hedgerow are identified, avoided and protected.
- 8.5 All arisings resulting from pruning operations are to be removed from site. Do not chip or burn on site.

9.0 EXISTING AND PROPOSED TREE PLANTING

- 9.1 All trees beyond the boundaries of domestic ownership will be maintained in perpetuity by the management company.
- 9.2 All tree works to be undertaken by an Arboricultural Association Approved Contractor to British Standard 3998 Tree Work specifications.
- 9.3 Trees planted within grass to have a weed free circle of 1.5meter diameter.
- 9.4 All tree surgery works to be carried out between September and February. None to be carried out between 1st March and 31st July as this is bird nesting season.
- 9.5 Minor pruning of dead or damaged wood shall be carried out annually. Branches hanging over back gardens to be appropriately reduced to increase light, taking into consideration species, location, season, and stage of growth, leaving a well balanced natural appearance. Wounds exceeding 25mm diameter must not be treated with a sealant. On substantial trees, the Local Planning Authorities Tree Officer must be consulted for any necessary approvals.
- 9.6 All planted areas including trees shall be given an application of an approved top dressing at the rate of 40 gm per sq. metre in May. This should be in slow release format.
- 9.7 Tree ties should be maintained and adjusted as required so as not to be the cause of damage to the trunk.
- 9.8 Fallen trees to be cleared and form log piles distributed where appropriate within the Open Space. Large sections of trees felled in the construction process should be kept on site so long as they are not moveable by hand.

10.0 PUBLIC OPEN SPACE

- 10.1 Open Space areas where disturbed by construction are to be sown with wildflower and grass seed. Undisturbed areas are to be left to gradually re naturalis. The Public Open Space Areas are **not** to be fertilized or treated with weedkillers. Pernicious weeds should be removed by hand.
- 10.2 Following the establishment, the wildflower grassland of locally occurring native species is to be cut in March to 4-7cm if there is sufficient material. It is then to be cut to 4-7cm in early May and to 4cm in September (following seed set).
- 10.3 During the following years, the wildflower and grassland areas are to be cut to 7cm in March/April, and the arisings removed. After seed set and then until the end of the growing season it should be cut to 10cm at fortnightly intervals.
- 10.4 Grass within the play area is to be cut weekly to a height of 75mm.
- 10.5 Amphibians to be translocated to the northern part of the POS in line with the ecologist recommendations.

11.0 PLAY AREA

- 11.1 Not less than two months before the expiry of the Maintenance Period the developer shall lay out the approved play area. On completion of the installation of the play equipment the developer will obtain a Safety Certificate free of qualification or condition relating to the equipment installed or the fencing. A copy of the certificate shall then be passed to the Council. The play area will be transferred to the Local Authority or its nominee prior to commencement of the one hundred and twentieth dwelling, or as may otherwise be agreed.
- 11.2 Weeding is carried out by hand, using the appropriate tools. All resultant material should be removed from site. Weeds which grow shall be spot treated with a contact systemic weed killer from the Local Authority's Approved List, applied according to the manufacturer's instruction, care being taken to ensure that no spray touches any part of the shrubs or trees.
- 11.3 Where feasible, an application of a Local Authority approved residual weed killer will be permitted, applied to the manufacturer's instructions, on areas that have been cleared of all weed growth and before further germination has taken place.
- 11.4 Weeds which do grow shall be spot treated with an approved non-selective systemic weed killer, according to the manufacturer's instructions, care being taken to ensure that no spray touches any part of the shrubs.
- 11.5 If a chemical control is adopted, it must be noted that the surface of the ground must not be physically disturbed.
- 11.6 All litter is to be removed from play area.
- 11.7 Any vandalism which occurs is to be reported to Havant Borough Council and remedied as appropriate by the appointed contractor.

The following inspections should be carried out every two weeks:

- 11.8 Remove any objects which do not belong in the playground. This is to include cleaning of the surface and litter.
- 11.9 Inspect for missing or broken parts and if necessary, lubricate or replace components.
- 11.10 Inspect frames, structures and joints and retighten as necessary.
- 11.11 Inspect moving or wearing parts, nets and ropes and repair and replace as necessary.

The following inspections should be carried out every year:

- 11.12 Inspection of the support structures and foundations for rust or rot, take appropriate action when necessary.
- 11.13 Inspect painted wood components, plywood and metal parts and apply a new finish in line with manufacturer's recommendations and with EN1176-14.1.1 where necessary

12.0 MAINTENANCE OF PONDS AND AQUATICS

- 12.1 Check fencing monthly to ensure barrier is maintained.
- 12.2 The ponds and their associated aquatic vegetation will be monitored and managed on a non-interventionist basis annually for four years post development, although plant growth and water levels will be monitored and emergency treatment carried out if necessary. Monitoring visits and management will take place outside the breeding season. Each monitoring visit will consist of an assessment of the water level; an assessment of the health of aquatic vegetation and the need for any further aquatic planting; and an assessment of the colonisation of the ponds by aquatic invertebrates.
- 12.3 The management of these ponds will be carried out so as to maximise their ecological value for insects, invertebrates and amphibians and for wider biodiversity in the local area. Management will seek to achieve the following conditions within the ponds: Areas of deeper open water in the middle of the ponds; between 40% and 60% cover of aquatic vegetation in deeper water; abundant, diverse marginal vegetation growth around the margins of the ponds; marginal and bankside vegetation grading naturally into surrounding terrestrial planting; and an overall healthy, balanced pond environment.
- 12.4 Once dug, the ponds will be butyl lined and filled with water and the level be allowed to fluctuate after this has been established. Planting will not be carried out until the final water level has been established. The need for additional planting will be assessed throughout the annual monitoring sessions, and carried out as necessary. The requirement for management of vegetation within the ponds will, to some extent, be informed by the initial 12 months of monitoring, however, it is likely that a partial removal of deep water aquatics to maintain between 40% and 60% of open water would be

necessary on an approximately five to ten year rotation, and that approximately 50% of marginal and emergent vegetation would need to be removed on a three to seven year rotation, dependent on how vigorous their growth is.

- 12.5 Removal of vegetation from the ponds and their margins should be carried out between mid-November and mid-February. Removal of vegetation should be carried out as sensitively as possible, with all operations carried out by hand or with the use of hand tools. Due care and attention should be given to avoid removing more than 50% of vegetation present in the pond in any given management year, and to avoiding carrying out vegetation removal in such a way that it might damage the pond or the nearby hibernacula.
- 12.6 It is recognised that ponds are dynamic functioning ecosystems, and that not all species planted are likely to perform equally well. As such it is to be expected that some species will die out between management intervals. This should not be seen as a cause for concern, provided that an overall diversity of plant species is maintained, providing suitable habitats for the associated fauna.
- 12.7 All vegetation removed from the ponds should be piled up and composted on-site, at least 2m from the margins of the pond. This would provide a further feature of ecological interest, and remove the need for the removal of material off-site.
- 12.8 Over time it is likely that some silt and leaf-fall will accumulate in the ponds. De-silting and leaf removal operations will be required on a regular basis, but that these should be carried out infrequently, as required. It is likely that this would need to take place on an approximately ten year cycle.
- 12.9 It is recommended that an annual inspection of the ponds be carried out with the Local authority in June of each year, to identify any ecological (and other) problems. This would include a check for the presence of, an assessment of the vegetation in each pond, an assessment of the water level, an assessment of the requirement for management operations, an inspection of the hibernacula associated with each pond and a general assessment of the ecological value of the ponds and wider site.

FUTURE MAINTENANCE SCHEDULES:

- Annual assessment of ponds after year one for four years and action as required
- Every ten years de-silt the ponds or as assessed appropriate
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13.0 MAINTENANCE SCHEDULES SUMMARY:

Weekly

- All plants shall be watered following 5 days without rain. Then weekly until natural rainfall during June – August.

Fortnightly

- Amenity Grass to be cut every 10-14 days
- There should be a minimum fortnightly litter pick over the entire site within areas covered by the management company.

Monthly

- Weed control shall be allowed for at monthly intervals. All areas to be weeded by hand.
- All plants shall be inspected monthly for wind firmness and firmed as necessary at the same time. Stakes shall likewise be checked for firmness.

Bi-Annual/ Annual

- The bark mulch should be topped up bi-annually
- Grass cutting to Wildflower areas – cut in line with guidance given in section 5.12

Annual

- Replacement of any failed trees or shrubs will be allowed for annually to ensure that the planting areas are fully stocked at all times.
- Any hollows which appear due to settlement shall be top dressed annually, early in the growing season.
- An application of a residual weed killer shall be allowed for on shrub areas.
- Minor pruning of dead or damaged wood shall be allowed for annually.
- All planted areas and trees shall be given an application of an approved top dressing in May. Not in Wildflower areas.
- Shrubs shall be maintained in a balanced shape and prevented from obscuring signs, windows and encroaching on paths.
- Check for invasive species remove from site.

Every 5 Years

- A suitably qualified person employed by the management company to undertake a review of the condition, success and long-term maintenance of the planting.

Any amendments to the landscape management plan required to ensure a good planting scheme should be submitted to the LPA for approval. The LPA may draw the managing company's attention to defects in the maintenance or failure to comply with the landscape management plan and require that the management company rectify these defects or apply for a variation to the landscape management plan.

Years 1-5 Landscape Maintenance Matrix

When activity needs to be carried out

Item	Activity and minimum frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Amenity grass areas	Grass cut (every 10-14 days)												
Wildflower grass areas	Mown once in March and then left until after seed has set, then should be mown fortnightly until end of season												
All planting areas	All planting areas given an application of top dressing (annually)												
	Top dressing any hollows due to settlement (annually)												
	Inspection and replacement of all failed stock in adoptable areas (annually)												
	Bark mulch topped up (bi-annually)												
	All plants to be watered during summer months (weekly until rainfall, or as required)												
Decorative shrubs	Hand weeding (monthly)												
	All plants inspected for wind firmness and firmed as necessary (monthly)												
	Shrubs maintained in a balanced shape and prevented from obscuring signs/windows/paths (twice a year)												
Hedges	Hedge clipping and trimming of planting in visibility												
	splays to 600mm in height (annually)												
	Decorative hedges to be trimmed after flowering and outside of nesting season (annually)												
Specimen trees	Checking of specimen trees for stakes, ties and guying (annually)												
	Prune to maintain shape and remove crossing or diseased branches as required when tree is dormant (check annually)												
Litter and debris removal	Clear litter and debris (fortnightly)												
Hard landscaping features	Paths swept and treated for weeds and moss, damage, chewing gum and litter (monthly)												
	Inspection and cleaning of hard landscaping including railings, bollards, benches, bins (weekly)												



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