ACD

Ecology

Arboriculture

Landscape Architecture

ROUNDSTONE LANE ANGMERING

LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN

Prepared by
ACD
Landscape
Architects

for

Space to live
David Wilson Homes

Written By:	AW
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1. 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 hedgerows.

1.3. To achieve a clean, tidy condition and appearance of all external areas.

2. Background Information

2.1. ACD Landscape Architects were commissioned in 2012 to prepare the following documentation:

- TREE SURVEY
- ARBORICULTURAL IMPACT ASSESSMENT
- LANDSCAPE STRATEGY PLAN
- SOFT LANDSCAPE PROPOSALS
- HARD LANDSCAPE PROPOSALS

2.2. The controlling Authority are Arun District Council, who should be consulted on any matters relating to existing trees and the approved ACD detailed landscape proposals for the scheme.

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3. 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, at their own cost.

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.

3.7. Management plan to be reviewed annually between April and June and a copy of this document to be shared with the LPA

4. General Maintenance

4.1. The landscape shall be the responsibility of the domestic owners, and David Wilson Homes and their appointed Management Companies (should these be contracted out), the agreement for which shall be set up by the Developer, who shall confirm in writing to the Principle Planning Officer of Arun District 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 set up by David Wilson Homes or by 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.

4.7. Any additional topsoil applied to the planting should be quality loam to BS3882 and have the following properties:

pH value		5.0 - 8.2
Nitrogen (N)	--	0.2 min
Phosphorous (P)		2% min
Potash (K)		2% min
Magnesium (Mg)		1% min
Clay	15% min	50% max
Silt	20% min	30% max
Sand	30% min	55% max

5. 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.

5.3. 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.

5.4. 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. Application of herbicides should comply with requirements of European protected species such as Great Crested Newts.

5.5. 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.

5.6. 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.

5.7. Any slight hollows which appear due to settlement or other causes shall be top dressed, early in the growing season, with fine compost lightly rolled in and the grass allowed to grow through before cutting.

5.8. Deeper hollows shall be treated by neatly cutting out a square of turf, building up beneath with the fine compost plus and equal quantity of sharp sand, and the turf replaced at the correct level for rolling. Cutting may proceed without interruption

5.9. Hollows repaired as above shall be kept watered as necessary until the turf has fully married in.

General

5.10. Grassed areas beyond the boundaries of domestic ownership will be maintained in perpetuity by the management company/ies.

5.11. 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. Wildflower Grassland

6.1. All wildflower grassed areas within the gardens shall be the responsibility of the domestic owners, the communal gardens shall be maintained by the appointed Management Company and the Local Planning Authority will be responsible for areas proposed for adoption.

6.2. Following the Autumn sowing, the wildflower grassland 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 flowering).

6.3. During the following years, the wildflower grassland is to be cut to 4-7cm in March/April (to remove excess grass) and to 4cm in September/October (following flowering).

6.4. All cuttings are to be removed from site.

6.5. Any hollows which appear shall be filled in with topsoil and allowed to re-seed naturally.

6.6. Open Space areas sown with wildflower and grass seed are **not** to be fertilized or treated with weedkillers. See Appendix B for plan of wildflower areas.

7. Shrub and Specimen Shrub Planting

7.1. All shrubs beyond the boundaries of domestic ownership will be maintained in perpetuity by the management company/ies.

7.2. 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.

7.3. The management company is responsible for litter picking in those areas that it manages. Litter should be cleared every two weeks.

7.4. All work should be carried out with caution in respect to European Protected species.

7.5. 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 tree and plant ties inspected and made good if required.

7.6. Minor pruning of dead or damaged wood shall be carried out annually. All wounds must not be treated with a sealant as per BS3998:1989 Recommendations for Tree Works. On substantial trees, the Local Planning Authorities Tree Officer must be consulted for any necessary approvals.

7.7. 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 shall provide a bowser for water, which should be applied at a rate of 16 ltrs per tree, Shrubs 3ltr each, Grass 5ltrs per sq m.

If the local temperature exceeds 25 degrees centigrade, then planting should be watered daily during the first season, and at least every three days in the second and third seasons until the onset of natural rainfall.

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

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7.8. All planted areas 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.

7.9. 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.

7.10. Groundcover planting species have been specified so as not to exceed 600mm in height. However, should planting exceed expectations, this should be carefully cut down to below 600mm in height to avoid interference with visibility.

7.11. 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.

7.12. No plant substitutions to be made without the prior written agreement of the Local Authority Landscape Section.

8. Hedge Planting

8.1. Boundary hedges to be maintained at 3m, cut annually in autumn; after August so as to be outside of the nesting season. Cuttings to be removed from site.

8.2. Decorative hedges to be maintained at 1.2-1.5m, cut after flowering has finished, outside of nesting seasons so as not to disturb wildlife. Cuttings to be removed from site.

8.3. All work should be carried out with caution in respect to European Protected species.

9. Specimen 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 (See Landscape Ecology Management plan June 2008)

9.5. Minor pruning of dead or damaged wood shall be carried out annually. 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 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.

9.7. 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.

10. Play Area

10.1. The density of planting will require that most 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.

10.2. Where feasible, an application of a Local Authority approved residual weed killer will be permitted, applied to the manufacturers instructions, on areas that have been cleared of all weed growth and before further germination has taken place.

10.3. 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.

10.4. If a chemical control is adopted, it must be noted that the surface of the ground must not be physically disturbed.

10.5. All litter is to be removed from play area.

10.6. Any vandalism which occurs is to be reported to local Planning Authority and remedied as appropriate by the appointed contractor.

The following inspections should be carried out every two weeks

10.7. Remove any objects which do not belong in the playground. This is to include cleaning of the surface and litter.

10.8. Inspect for missing or broken parts and if necessary, lubricate or replace components.

10.9. Inspect frames, structures and joints and retighten as necessary.

10.10. Inspect moving or wearing parts, nets and ropes and repair and replace as necessary.

The following inspections should be carried out every year

10.11. Inspection of the support structures and foundations for rust or rot, take appropriate action when necessary.

10.12. 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.

11. Maintenance Summary Schedules

Weekly

- All plants shall be watered following 10 days without rain. Then weekly until natural rainfall during June – August.

Fortnightly

- Grass to be cut every 10-14 days except for defined areas of wildflower and grass which should be mown in March and then left until seed set after which they should be mown fortnightly until the end of the season to a minimum height of 150mm.

- 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

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.

- Mechanical weed removal preferred before considering herbicides. Persistent pernicious weeds can be spot treated with systematic non residual herbicide if hand removal proves inadequate.

- 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 as mentioned earlier and remove from site.

- Hedge clipping and trimming of planting in visibility splays to 600mm in height.

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.

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