

Allen Pyke Associates

LANDSCAPE MANAGEMENT PLAN

Pollards Nursery – Phase I
Lake Lane, Barnham



Landscape architecture | Urban design | Environmental planning

Prepared on behalf of

Redrow Homes Southern Counties

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I. INTRODUCTION AND MANAGEMENT RESPONSIBILITIES

- I.1. This Landscape Management Plan has been prepared by landscape consultants Allen Pyke Associates for the residential development at Pollards Nursery, Barnham. The site is located to the west of the village on a component of a plant nursery. The development site has been split into two phases, with Phase I consisting of 23 residential units. Properties comprise of a range of unit types varying in size from 2 to 2.5 storey, 3 to 5 bed detached terraced housing with associated private gardens. There is associated parking and incidental open space throughout the scheme. A significant feature of the wider development site and this phase, is the retained boundary vegetation that helps frame and add an instant maturity to the areas of new public open space.
- I.2. The purpose of this document is to set out the overall management objectives for the common external areas and retained structural vegetation, and to describe the long term maintenance required to allow the planting to flourish and reach its design potential.
- I.3. All references to planting treatments are based on the planning submission drawings:
- 2600-LA-08 and 2600-LA-09 Landscape General Arrangement
 - 2600-PP-07 and 2600-PP-08 Planting Plan
 - 2600-LA-05 Masterplan
- I.4. All front and rear gardens of individual properties will be conveyed to house purchasers/tenants. These purchasers/tenants will then be responsible for maintaining their own property in a neat and tidy condition.
- I.5. Until private areas are conveyed or the Management Companies take over, Redrow Homes will be responsible for maintaining all the above areas and will be responsible for replacement of defective stock in accordance with the planning conditions.

2. MANAGEMENT OBJECTIVES

- 2.1. The site shall be managed as a high quality amenity area maintaining an attractive, tidy and safe finish to all landscape elements. The proposed structure planting will give a cohesive site character, provide a visual buffer between public and private spaces and provide green framework to the new built development.
- 2.2. The proposed planting aims to enhance the biodiversity and nature conservation interests.

- 2.3. Redrow Homes, the Management Company and the Purchasers/Tenants shall ensure establishment and long-term health of all landscape elements for the benefit of residents and visual amenity of the area.
- 2.4. Best Health & Safety practices shall be used at all times.
- 2.5. In order to monitor standards and make amendments where required, it is expected that Redrow Homes, and subsequently, the Management Company will review the management work (with reference to this document) at least quarterly with the maintenance team for the first year and annually thereafter.

3. MAINTENANCE VISITS

- 3.1. There shall be a minimum of 20 maintenance visits per year prior to handover to householders and Management Company to ensure plant establishment. Visits shall be twice weekly during March to October, and monthly during the rest of the year. Additional visits may be needed to deal with extreme weather conditions or specific horticultural requirements.

4. GENERAL

- 4.1. All materials and workmanship are to be to the highest possible standards and shall be in accordance with relevant British Standards, good horticultural and arboricultural practices, and the landscape specification.
- 4.2. Redrow Homes or the Management Companies shall employ suitably qualified staff for all work and when using sprays and mechanical equipment. All equipment shall be kept in a sound condition, fit for use and purpose.
- 4.3. Redrow Homes, the Management Companies and their appointed contractors shall comply with all relevant Health & Safety regulations and good working practices.
- 4.4. Redrow Homes and the Management Companies shall take care when work is beside any structure or paved area and will, at their own cost, be responsible for making good damage however caused.
- 4.5. All work shall be carried out while soil and weather conditions are suitable.
- 4.6. Weeds, prunings, leaves, rubbish and other arisings shall be removed from site at the end of each visit. No material shall be left on site, and the area shall be left in a neat and tidy condition after each visit.

- 4.7. Under no circumstances shall arisings, wood, rubbish etc. be burnt on site or be disposed of through refuse bins provided on site for occupants.
- 4.8. Entomological or disease infestation shall be dealt with as required and shall be checked at each visit. Control shall be either by spraying with approved chemicals, pruning all dead wood by cutting back to an outward pointing bud or by removal of the affected plants.
- 4.9. Watering during the first two years after planting may be necessary during times of drought in summer months and, when watering is required, it shall be carried out on a regular basis to suit climatic conditions. If conditions are severe or soils are particularly free-draining, careful monitoring and more frequent watering may be necessary to maintain good plant health and avoid plant failure.
- 4.10. All shrubs/hedges shall be pruned to remove deadwood, overhanging/ tangled and damaged branches. Winter flowering shrubs shall be pruned in spring. Shrubs flowering in March-July shall be pruned immediately after the flowering period and shrubs flowering in July-October shall be cut back to old wood in winter. Shrubs that require spring pruning to provide seasonal colour shall be pruned in March and shrubs that require seasonal pruning to promote continual flowering will be pruned appropriately.
- 4.11. Plants shall be re-firmed when necessary to ensure that plants are securely planted and upright.
- 4.12. Bark mulch levels shall be maintained, being topped up when necessary to a minimum depth of 50mm. Any spillages shall be swept back on to the bed from surrounding areas, ensuring no plants are smothered.
- 4.13. Edge valleys in beds shall be maintained and grass edges shall be cut at each maintenance visit.

5. TREES

Specific objectives:

- To ensure early establishment and healthy growth.
- To create a well-shaped framework for future balanced growth.
- To enhance appearance and visual interest.

Maintenance Operations:

- 5.1. In the first two years following planting, new trees are to be closely monitored at each maintenance visit to ensure that they are upright, firm, stable and in good health.

- 5.2. Checks shall be made to ensure all stakes, and ties of planted trees are properly adjusted at each maintenance visit. Between years 3-5 tree stakes shall be removed once trees have established and are root firm.
- 5.3. Trees shall be watered to field capacity in the first and second years of planting, taking into account prevailing weather conditions and hot dry periods. They should be watered with the use of a hose being left to run slowly down the irrigation tube until the pit reaches full capacity. Careful monitoring during watering shall be necessary to minimise the risk of failures, leaks or damage to property.
- 5.4. Any damaged or dying branches shall be removed using the standard methods appropriate for the work. Any dead, dying or defective trees shall be replaced in the following dormant winter period, refer to Section 15 Plant Replacement.
- 5.5. Trees planted in grass areas shall have a 1000mm diameter circle around the trunk which should be maintained, free of weeds and be mulched as in shrub beds until the tree is no longer vulnerable to damage from mowing equipment.
- 5.6. Trees planted along the boundary are to be monitored and phased removal and replacement of weaker specimens over a period of 5 years will allow the boundary to be significantly strengthened.

6. NATIVE PLANTING MIXES

Specific objectives:

- Allow native species to develop a natural shape
- Encourage dense coverage through pruning, cultivating, watering when required, fertiliser application, incorporating organic matter and mulching
- To maintain appearance and visual interest

Maintenance Operations:

- 6.1. All beds shall be maintained substantially free of weeds. Work shall be done either manually or with appropriate selective weed killer in accordance with manufacturer's recommendations. If weed killer is used the dead weeds shall be removed at the next maintenance visit. Care must be taken to avoid damage to adjacent planting and grass.

7. HEDGE PLANTING

Specific objectives:

- To ensure early establishment and healthy growth.
- To create a well-shaped framework for future balanced growth.
- To maintain and manage appearance/height as specified on approved plans.

Maintenance Operations:

- 7.1. All beds shall be maintained substantially free of weeds. Work shall be done either manually or with appropriate selective weed killer in accordance with manufacturer's recommendations. If weed killer is used the dead weeds shall be removed at the next maintenance visit. Care must be taken to avoid damage to adjacent planting and grass.
- 7.2. Hedging shall be trimmed after flowering, as in 4.10 and again if necessary in autumn to maintain a 'hedge' shape at the height appropriate to the species and location. Hedges shall be pruned either manually or by machine in a manner which ensures full leaf coverage over the plant and all arisings shall be removed from site

8. SHRUBS

Specific objectives:

- To ensure early establishment and healthy growth.
- To maintain a dense canopy cover.
- To maintain year round appearance and visual interest.

Maintenance Operations:

- 8.1. All shrub beds shall be maintained substantially free of weeds. Work shall be done either manually or with appropriate selective weed killer in accordance with manufacturer's recommendations. If weed killer is used the dead weeds shall be removed at the next maintenance visit. Care must be taken to avoid damage to adjacent planting and grass.
- 8.2. Once established, shrubs shall be selectively thinned or reduced in height as appropriate by removal or pruning to allow room for growth and avoid overcrowding/overshadowing. Care shall be taken to avoid over pruning and so creating obvious gaps in the shrub beds.
- 8.3. Ground cover plants shall be clipped or pruned if necessary to give a neat and tidy finish and contained within the planting bed. Work to remove dead vegetation shall be carried out during the winter months.

9. HERBACEOUS PLANTING

Specific objectives:

- To ensure early establishment and healthy growth.
- To maintain a dense canopy cover.
- To maintain year round appearance and visual interest.

9.1. For most herbaceous species, a single cut can be carried out in early spring after the risk of frost has passed (generally March onwards). Leaving dried flowers heads over winter provides visual interest and provides a food source for seed eating birds and insects. Shelter is also found for wildlife in dead foliage over winter.

9.2. Pruning:

- In spring cut stems close to the 'crown' or 'dormant' top of the plant, avoiding the removal of new shoots.
- Tidy up the base of the plant, removing dead foliage and debris.
- Remove all material from site.
- Apply a 50mm layer of coarse mulch, 150-300mm away from stems. This will help moisture retention in the soil and contribute to weed suppression.
- Many perennials respond well to dead heading throughout the summer as heads begin to fade. This will produce more blooms within that season e.g. Echinacea, Helleborus. Repeat as necessary.
- Leave dried flower head over winter for relevant species e.g. Miscanthus sinensis 'Red Chief'.

9.3. Fertilising:

- One application, just before or at the time of spring growth.
- A balanced fertiliser is required, one high in Phosphorus (which encourages blooming as well as strong roots and disease resistance). Fertilisers high in nitrogen should not be used as nitrogen promotes excess foliage at the expense of flowers and roots which can result in weak stems. (NPK 10-20-10 balance would be suitable).

9.4. Watering:

- In the first year thorough watering once a week is required, checking for a dry soil surface during wetter periods.

- Established plants will need watering during dry spells, check for a dry soil surface between watering.
- Carry out a thorough watering of the roots of the plant. Light watering may encourage surface rather than deep roots, leaving plants more susceptible to drought.

9.5. Weeding:

- Spot treat persistent weeds with glyphosate, remove one month later.
- Or, remove by hand pull.
- Ensure a consistent layer of mulch is present.

9.6. Staking:

- Taller species will require staking in early spring/ summer to maintain an upright form e.g. Lysimachia.

9.7. Dividing:

- Divide plants every two to three years to maintain healthy growth and avoid overcrowding. To be carried out in spring when the soil is dry enough to work and before new growth and flowering occurs or for those species e.g. Helleborus that require autumn division, carry out dividing in September/October.

10. GRASSED AREAS (Refer Appendix C for locations)

Grass areas are divided into two specific mowing regimes:

- Well Maintained Grass for Front Gardens and Service Margins
- Frequently Mown Grassed Areas for Amenity Use

WELL MAINTAINED GRASS FOR FRONT GARDENS AND SERVICE MARGINS

(Refer Appendix C for location)

Specific objectives:

- To create a level, attractive and even grass sward with uniform height and colour for high for domestic use.
- To enhance appearance and visual interest

Maintenance Operations:

- 10.1. A maximum of 30 cuts per year shall be carried out using approved machinery. The maintenance visits shall take place either weekly or fortnightly during the growing period to maintain the sward

length within the limits of 25mm and 60mm. The clippings shall be collected and removed from site unless otherwise agreed, and at all times the areas shall be maintained in a tidy condition.

- 10.2. All edges of grass areas, against footpaths, roadways, trees, posts, shrub borders and any other obstruction shall be kept neat and tidy. Edges shall be cut at least at each alternative main grass cut, i.e. once every two weeks.
- 10.3. When necessary grass areas shall be sprayed with a suitable approved selective herbicide in accordance with the manufacturer's recommendations to control weed infestation. Alternatively, spot treatment weeding of isolated weed growth may be carried out by hand or herbicide application. Arisings shall be removed from site.
- 10.4. Fertiliser shall be applied at manufacturer's recommended rates once a year in April.
- 10.5. Reinstatement by re-seeding of damaged, defective or bare areas shall be carried out as appropriate. Any dips or holes within the grass shall be filled as above to restore even falls and reseeded as necessary.
- 10.6. Where necessary compacted areas shall be aerated with appropriate equipment in October.
- 10.7. At no time shall machinery get closer than 500mm to any tree trunk. Damage must be avoided to trunks when using a strimmer.

FREQUENTLY MOWN GRASSED AREAS FOR AMENITY USE

(Refer appendix C for location)

Specific objectives:

- To create a level attractive and even grass sward with uniform height and colour.
- To create a transitional grassed area between the less maintained amenity grassland and the well maintained housing areas.

Maintenance Operations:

- 10.8. Mowing shall be carried out between 12 and 14 times per year using approved machinery. The maintenance visits shall take place once in March, if required then twice in April to September and then once in October if required. The clippings shall be let fly and must be evenly distributed over the whole surface and at no time shall the layer of clippings be to such a depth that they affect the growth of the grass. Clippings shall be removed from all paths and roads and taken off site.

- 10.9. All edges of grass areas, against footpaths, roadways, trees, posts, shrub and whip borders and any other obstruction shall be kept neat and tidy. Edges shall be cut at alternative maintenance operation, i.e. once per month
- 10.10. When necessary grass areas shall be sprayed with a suitable approved selective herbicide in accordance with the manufacturer's recommendations to control injurious or invasive weeds. Alternatively, spot treatment weeding of isolated weed growth may be carried out by hand or herbicide application. Arisings shall be removed from site.
- 10.11. Reinstatement by re-seeding of damaged, defective or bare areas shall be carried out as appropriate. Any dips or holes within the grass shall be filled as above to restore even falls and reseeded as necessary.
- 10.12. Where necessary compacted areas shall be aerated with appropriate equipment in autumn.
- 10.13. At no time shall machinery get closer than 500mm to any tree trunk. Damage must be avoided to trunks when using a strimmer.

11. WILDFLOWER MEADOW AREAS

(Refer Appendix C for location of areas)

Specific objectives:

- To create an attractive sward of varying height and colour.
- To provide habitat and foraging opportunities for wildlife.

Maintenance Operations:

- 11.1. Refer to planting plans for the proposed extent of seed mix.
- 11.2. Cutting to be carried out using an appropriate heavy duty strimmer, scythe, or suitable large wheeled, rotary mower to avoid injury to wildlife.
- 11.3. Remove any litter, debris, stones and earth clods larger than 25mm in any dimension prior to mowing.
- 11.4. Following establishment of the seed, where there is enough growth of either weeds or sown species, the first year of mowing should be regular and as per Amenity Grass maintenance operations – all arisings are to be collected and removed.
- 11.5. The requirements in the first year are to control excessive weed growth and reduce competition from aggressive and/or non-native grasses. Where persistent weeds are a problem dig-out by hand.

11.6. Sward heights in the first year of mowing are to be kept within the following limits:

- 25-40mm (April – August)
- 40-60mm (Rest of year)

11.7. In the second year from sowing, mowing should be relaxed to produce a single “hay crop” cut to a height of 40-75mm, taken in mid-summer (typically at the end of June), to allow the meadow to flower and set seed. Arisings should be spread around the meadow area, turned over and left to dry on site, to allow for the dispersal of seeds – this should then be removed within 7 days of cutting.

11.8. If desired, following this main cut, an additional two cuts to maintain a sward height of between 40-75mm may be undertaken, up until the end of November.

11.9. In the following years (2 years +) from seeding/establishment, mowing can be reduced to a minimum of three times a year. The midsummer “hay crop” cut and spreading of arisings and a further two autumn cuts (if desired) up until the end of November to help keep the sward between 40-75mm.

11.10. No fertiliser or nutrients to be added at any time.

11.11. Overseed if required with additional appropriate EM3 – Special General Purpose Meadow Mixture (supplier Emorsgate Seeds) if slow to establish or excessive bare patches appear. All overseeded areas should follow the same establishment regime as adjacent areas (regular mowing in year 1 and then progressively relaxed mowing following establishment).

12. NATURALISED BULB PLANTING

Specific objectives:

- To create an eye catching seasonal feature within amenity grade grass.
- To enhance seasonal appearance and visual interest.
- To provide early nectar sources for wildlife.

Maintenance Operations:

12.1. Grass **shall not be cut** within areas of bulb planting until six weeks after bulbs have flowered. Grass and bulb leaves shall be cut firstly to approximately 100mm and arisings raked up and removed from site. The area shall then be cut to the length of the surrounding grass either immediately or within two weeks of the first operations. All arisings shall be raked off and removed from site.

- 12.2. Where necessary weak/damaged grass shall be over seeded as appropriate immediately after the bulb leaves and grass have been cleared.

13. AQUATIC PLANTING

Specific objectives:

- To create new wetlands for the enjoyment of the public.
- To manage all wetland habitats to encourage a range of species such as amphibians, mammals, aquatic insects and birds.

Maintenance Operations:

- 13.1. To promote new growth reeds will be cut back on rotation between September and January so that each bed is not cut more than once in two years.
- 13.2. Aquatic planting will be managed to ensure that the cover is less than 10% and that open water covers 90%.
- 13.3. All culverts will be maintained in good working order so as to allow movement of water in the system to prevent stagnation in the ditches. Encroachment of vegetation will be monitored and cleared at least twice a year or as necessary.
- 13.4. **No fertiliser or additional nutrients area to be added at any time.**

14. EXISTING WOODLAND

Specific objectives:

- To retain the existing woodland as a landscape feature within the wider landscape character area.
- To maintain and enhance habitats of existing wildlife populations.
- To create a green buffer around the new development.

Maintenance Operations:

- 14.1. The existing woodland provides a good habitat for many species of wildlife and birds. Removal of broken branches or standing deadwood should only be carried out where it represents an unacceptable risk to people.
- 14.2. Fallen trees provide a valuable habitat for woodland insects and small mammals and should not be removed or broken up unless necessary for safety reasons.

- I 4.3. Canopy ivy should be selectivity thinned out to permit light to reach ground level. Areas of thinning should take place in rotation.
- I 4.4. Limited coppicing should to be carried out to the existing woodland edges, subject to detailed assessment of trees, to create a varied woodland edge character and encourage the growth of woodland edge, understorey field level species.
- I 4.5. All coppicing/thinning/pruning works are to be undertaken outside of the bird nesting season from February/March to August/September inclusive.

I 5. PLANT REPLACEMENT

- I 5.1. An annual inspection of trees and shrubs shall be undertaken in September of each subsequent year after planting to assess the condition of stock and prepare a list of necessary remedial work and replacement planting. The list shall be submitted to Redrow Homes or the Management Companies, as appropriate immediately after the visit with accompanying financial implications. Replacement planting shall be implemented in accordance with the planning requirements for all plots and in perpetuity for the blocks of flats. Redrow Homes shall be responsible for the replacement planting for the first year after planting, but for the next four years the Management Companies or the Purchaser/Tenant shall be responsible for the replacement of dead or dying plants.
- I 5.2. All work shall be carried out by appropriately qualified horticultural operatives with adequate insurance. All work shall be carried out in accordance with good horticultural practice and B.S. standards. All debris arising from the works shall be removed from site.
- I 5.3. Any new replacement planting shall be tagged so the local authority, Redrow Homes, the Management Companies or the Purchaser/Tenant is aware that these plants will have a further one year's defect liability period. The contractor shall provide Redrow Homes or the Management Companies with a list of replacements and their location after completion.
- I 5.4. Replacement tree and shrub planting, shall take place in the following November-February, dormant winter period during suitable weather conditions. All stock shall be of the same size and species as originally specified.
- I 5.5. Approval of all remedial and replacement work shall be obtained before commencing any remedial work.

16. LITTER COLLECTION

- 16.1. All hard surfacing shall be swept as necessary, and all rubbish removed from site.
- 16.2. Litter picking/clearance shall take place during each maintenance visit and all waste shall be removed from site.
- 16.3. During autumn maintenance visits all fallen leaves on hard surfaces shall be collected and removed from site

17. FENCING/WALLS/RAILING

- 17.1. All fencing, walls and railings shall be checked for damage/wear and when necessary shall be replaced/repared/ re-stained or painted as appropriate

18. HARD SURFACES

- 18.1. Provide contact number for residents to notify Management Company of any hazards.
- 18.2. Inspect the hard landscape areas on a six monthly basis to identify and repair any damaged areas.
- 18.3. Seasonal maintenance (leaf and snow clearance, de-icing).
- 18.4. Surfaces to be kept weed and litter free at all times. Spray paved areas annually with a suitable herbicide or apply heat/flame gun to top growth to keep weed free.
- 18.5. Drainage systems associated with hard surfaces to be inspected annually and maintenance work undertaken as necessary.
- 18.6. Repair any subsidence or breakages promptly in accordance with best practice, manufacturer's guidance and using matching paving units.
- 18.7. Inspect and repair all edging on a regular basis making good any damage or wear promptly to maintain the good upkeep of the development.

APPENDIX A

ANNUAL MAINTENANCE OPERATIONS MATRIX

	J	F	M	A	M	J	J	A	S	O	N	D
General Operations												
Weeding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Watering				✓	✓	✓	✓	✓	✓			
Litter removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Removal of fallen leaves									✓	✓	✓	✓
Re-firming plants (as required)		✓	✓							✓	✓	
Pest and disease control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replacement Planting	✓	✓	✓							✓	✓	✓
Grass Areas (Refer Appendix C for location of areas)												
Mowing – Well maintained areas (max 30)			✓	✓	✓	✓	✓	✓	✓	✓		
Mowing – Frequently mown areas (max 12-14 cuts)			✓	✓	✓	✓	✓	✓	✓	✓		
Mowing – naturalised bulb planting areas						✓	✓	✓	✓			
Rake mown lawns (as required to keep tidy)			✓	✓	✓	✓	✓	✓	✓	✓		
Aerate and scarify lawn areas			✓						✓			
Apply fertiliser to lawn areas			✓						✓			
Form edges to lawn areas (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Over-seed sparsely germinated grass areas				✓	✓				✓	✓		
Wildflower Areas												
First Year												
Regular mowing to 25-40mm sward length				✓	✓	✓	✓	✓				
Regular mowing to 40-60m sward length	✓	✓	✓						✓	✓	✓	✓
Second Year												
Hay crop cut to 40-75mm sward length						✓	✓	✓				
Autumn cut - if required									✓	✓	✓	
2+ Years												
Hay crop cut to 40-75mm sward length						✓	✓	✓				
Autumn cut(s)									✓	✓	✓	
Shrub/Herbaceous Areas and Hedges												
Pruning (timing dependant on species)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Top up mulch (after first year & replanting)			✓									
Thin out planting										✓		
New & Existing Trees & Native Hedgerows												
Check condition and treat (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pruning for good habit & safety (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check, adjust, repair trees stakes & ties		✓			✓			✓			✓	
Apply fertiliser and mulch to new trees			✓									
Annual monitoring									✓			
Hard Landscape Areas & Enclosure												
Weeds in hard surfaces - spray with herbicide or heat/flame gun					✓	✓	✓	✓	✓			
Clear litter, debris and fallen leaves	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gullies etc - keep clear (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fencing and gates - check condition & repair	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: This table lists the key routine operations required during both the defects and long term maintenance periods together with an indication of when they should be undertaken throughout the year. It should be noted that the table should be used as a guide to times only. It does not include every operation listed in the specification but all checking and intermittent maintenance actions should occur during the routine visits. The contractor is responsible for the appearance and condition of the landscape areas and should be prepared to undertake specific maintenance tasks outside the above periods throughout the year to satisfy management or safety objectives.

APPENDIX B

PLANTING SPECIFICATION FOR REPLACEMENT PLANTS

AI.0 PERFORMANCE AND MATERIAL

AI.1 TRANSPORT AND HANDLING

AI.1.1 Transport and handling shall be carried out in accordance with season and good horticultural practice.

Transport and handling shall comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.

All packages shall be adequate to protect the plants and prevent their drying out or damage of any kind during transportation.

All plants must be in a turgid condition and stacked in such way that breakage or crushing by the weight of the plants above or securing ropes will not occur in transit.

The plants shall be loaded in a manner suitable to facilitate simple unloading techniques which are not labour intensive and minimise risk of damage.

The growers' price shall be taken to include packaging and carriage within a 500 mile radius from the growers' nursery.

Protect plants/trees from frost. Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.

Plant packaging: co-extruded polythene bags. Packaging of bulk quantities: pallets or shrink wrapped

AI.2 TREES AND SHRUBS

AI.2.1 TREES GENERALLY

All plants shall be true to name and character and shall be supplied as bare-rooted, root-balled or container grown. Unless otherwise stated all trees shall be supplied container grown. They shall be grown and handled according to good horticultural practice and according to all current UK Government and EC regulation. The grower shall be expected to carry out thorough and rigorous production methods to ensure that the trees are of the highest standard.

AI.2.2 Trees shall have a well developed, balanced head, either well-branched or with an upright central leader and laterals depending on species and habit. Branch framework shall consist of a minimum of 5 main branches with lateral shoots. Trees shall have a good fibrous root system and shall have been transplanted as scheduled to build up main roots with laterals and fibre.

Insulation wrapping shall overlap to form a double thickness and shall be securely bound with cord. All branches are to be tied to avoid damage during lifting, transit and off-loading.

All trees are to be loaded to avoid breaking or crushing during the lifting, transit and off loading. During lifting, loading and off-loading, trees shall only be lifted by the root-ball which shall be supported by chains, straps or a frame. In addition, support shall be provided on the main stem to control movement of the tree during lifting. No tree shall be lifted by means of the trunk of main stem.

AI.2.3 CONTAINER GROWN TREES

Container grown trees shall be supplied in the first instance over trees supplied root-balled, this lessens the occurrence of transplant shock and damage to the young, developing root system. All trees shall be supplied in rigid containers or air pots. All trees shall have been grown in the UK and in containers for at least one full growing season prior to delivery.

The root systems will thoroughly permeate the contents of the container with clear evidence of the proper establishment of a healthy fibrous root system within the full volume of the container. Plants showing signs of being pot bound or waterlogged will not be acceptable.

The compost used will hold sufficient reserves of nutrients to maintain the plants in a satisfactory condition for a reasonable period of time after leaving the Growers Nursery. The compost shall be free from any perennial weeds and have a reasonable moisture content. The compost shall not contain peat.

A1.2.4 ROOT-BALLED TREES

Root-balled trees shall only be used at the request of the client or Landscape Architect. The root-balls shall be adequately supported by wire mesh, hessian, or other suitable material to prevent collapse of the rootball. The rootball shall be the minimum diameter appropriate for the species and specified size of tree and sufficient size to contain the fibrous roots. Trees which have a collapsed root ball to expose major parts of the root system will be rejected by the Landscape Architect / Landscape Contractor on delivery or replaced if damaged during handling on site.

A1.2.5 CLEAR STEM TREES

All clear stem trees shall have a full and well developed crown with uniform leaf coverage appropriate to their age and species. All shall bear a single central leader. Unless otherwise stated, they shall have a 1.8m clear stem height.

A1.2.6 CONTAINER GROWN SHRUBS AND HERBACEOUS PLANTS

All plants will be true to name and character and shall be supplied container grown. They shall have been grown and handled according to good horticultural practice and to all current UK government and EC regulations.

All plants shall be well developed and bushy and grown in a container for at least one full growing season prior to delivery.

The root system will thoroughly permeate the contents of the container with clear evidence of the proper establishment of a healthy fibrous root system within the full volume of the container. Plants showing signs of being pot bound or waterlogged will not be acceptable.

They shall show a high degree of extension growth typical to the species or type and appropriate to the specified container size.

The compost will hold sufficient reserves of nutrients to maintain the plant in a satisfactory condition for a reasonable period of time after leaving the growers nursery. The compost shall be free from any perennial weeds and have reasonable moisture content. The compost shall not contain peat from UK Sites of Special Scientific Interest or the equivalent from other countries.

All plants shall on delivery be free from diseases and pests and materially undamaged.

All plants shall be properly hardened off before delivery.

A1.2.7 All plants supplied shall come from nurseries accredited by the HTA as grown in accordance with the National Plant Specification. If the Landscape Maintenance Contractor wishes to use plants imported from overseas or supplied from non-accredited nurseries then approval from the Landscape Architect must first take place.

A1.3 OTHER MATERIALS

A1.3.1 LABELS

Provide each tree/plant or group of trees/plants of a single species or cultivar with supplier's labelling for delivery to site, showing:

- The full botanical name
- Total number
- Number of bundles
- Part bundles
- Supplier's name
- Employer's name and project reference
- Plant specification, in accordance with the scheduled National Plant Specification categories

Label all trees/plants in accordance with the relevant part of BS 3936.

A1.3.2 PLANTING COMPOST

2600-MP-01-PI Pollards Nursery

Shall comprise suitable humus-forming material such as leaf mould, spent mushroom compost, composted bark, or other suitable organic material. Use of peat is not permitted.

Planting compost shall be obtained from an approved source and the Landscape Maintenance Contractor shall notify the Landscape Architect of the material content proposed to use before carting to site.

An analysis of the compost should be obtained and supplied to the Landscape Architect prior to its approval.

A1.3.3 POLYMER

Shall be 'Broadleaf P4' Agricultural polymer or equivalent approved. Available from Agricultural Polymers Ltd, Pillar and Lucy House, Merchants Road, Gloucester GL1 5RG.

A1.3.4 ROOT DIP

Shall be 'Broadleaf' root dip as supplied by Agricultural Polymers Ltd or equivalent approved.

A1.3.5 CHEMICAL FERTILISER

Apply evenly over all areas to be planted at rates appropriate to planting type to manufacturers specification.

A1.3.6 TREE STAKES

Unless specified trees are to be secured by stakes. 14-16cm girth trees and below by a single stake to be secured at low level ($\leq 500\text{mm}$) and 18-20cm girth trees and above to be double staked with cross bar of flexible biodegradable webbing within 25mm of top of stake. Stakes to be placed outside of the rootball and extend at least 450mm into the ground. Once the tree has established stakes are to be removed.

A1.3.7 TREE TIES

All ties to be biodegradable.

A1.3.8 MULCH

Shall consist of medium grade, well composted bark of British origin with an even particle size distribution between 5-35mm. All dust and fine material to be expended. The mulch shall contain less than 1% wood. The mulch shall be pest, disease and weed free and be free of any contamination.

Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds with 50mm settled layer of mulch.

The mulch shall be from an approved source and representative sample of the mulch shall be supplied for approval prior to delivery to site.

A2.0 INSTALLATION AND WORKMANSHIP

A2.1 GENERALLY

All work specified in this section shall be carried out in accordance with BS 4428: 'General Landscape Operations'.

A2.2 STORAGE

A2.2.1 If the plants are not to be planted within 24 hours of delivery, bare root plants shall be heeled in by placing the roots in a prepared trench, covering them with fine soil and firming well or watering in to prevent air pockets. Container grown plant material will be stored upright in a location on site agreed with the Landscape Architect and /or Client. Any plant material stored on site shall be protected from drying winds, frost and shall be watered.

A2.3 ANTI-DESICCANT SPRAY

A2.3.1 Do not use

A2.4 SEASON

A2.4.1 All containerised shrubs and trees will be planted with prior agreement of the Landscape Architect and/or Client. Root-balled plants and trees will be planted during the October-March planting season.

A2.5 PLANTING CONDITIONS

A2.5.1 All planting works shall be carried out in accordance with the agreed programme when soil and weather conditions are suitable and as directed by the Landscape Architect. No planting shall be carried out when the ground is frozen, snow covered, waterlogged or excessively dry.

In the event of the planting taking place during prolonged hot and dry conditions, the Landscape Maintenance Contractor is to ensure that the plants are well watered to ensure successful establishment.

A2.6 WORK BY MACHINE OR HAND

A2.6.1 All operations herein after described may be carried out by suitable machines or by hand. Any work in confined or awkward spaces or areas or which it is impracticable to carry out by machine for any reason shall be executed by hand.

A2.7 APPLICATION OF HERBICIDE

A2.7.1 All planting areas shall have all weeds killed prior to planting with the exception of any areas containing existing native vegetation which is to be retained and additional planting added.

A2.8 PLANTING GENERALLY

A2.8.1 The Landscape Maintenance Contractor shall be responsible for setting out all areas of planting to the satisfaction of the Landscape Architect and shall rectify any errors in setting out at their own expense. Replacement plants shall be planted in the numbers indicated on the original drawings or as or as directed by the Landscape Architect and shall be evenly spaced for a group of any one plant species. Whilst rigid accuracy in spacing and setting out is not essential, the Landscape Maintenance Contractor will be expected to achieve the general distribution of plants as shown on the drawing.

A2.8.2 No planting shall take place unless the ground is free of perennial weeds. Carefully position the root-balls of all plants and trees to suit their original growth habit and consolidate the soil firmly around them. All plants are to have the same relation to the ground as they had in their original nursery position. Great care should be taken to avoid damage to the root system, and stem when planting. The rootball around pot grown plants, evergreens etc. shall not be disturbed. If damage to the root is done, the root shall be cut cleanly with a knife.

A2.9 CULTIVATION

A2.9.1 Areas to feature ornamental material shall have all weeds killed prior to planting. Beds shall be dug by hand to a minimum depth of 300mm, breaking down all lumps, incorporating planting compost and polymer as specified, then forking, raking and collecting and removing from site all weeds and any debris greater than 50mm diameter. The surface is to be left with a medium tilth (particles less than 10mm diameter) with smooth, flowing contours, removing all minor hollows and ridges. Finished levels after settlement shall be 30mm above adjoining paving or kerbs, not less than 150mm below the dpc of adjoining buildings and smoothly merged with adjoining soil areas. Finished topsoil grading shall be approved by the Landscape Architect prior to commencement of planting.

A2.10 TREE PLANTING

A2.10.1 SETTING OUT

Light stakes or canes are to be placed at all tree positions, as marked on the drawings; the right is reserved to adjust the exact position of the trees after they have been set out on site. Forty-eight hours notice shall be given before tree pits or trenches are to be dug in order that the Landscape Architect may approve or adjust the positions.

A2.10.2 TREE PITS / TRENCHES

Pits or trenches shall be prepared before trees arrive and the Landscape Maintenance Contractor shall ensure that during periods of intense and prolonged frost suitable measures shall be taken to protect the bottom and sides of the pits / trenches and piles of topsoil from becoming frozen.

During the digging operation, all subsoil and topsoil should be separated and put aside for re-use.

Compacted glazed sides of pits resulting from the use of mechanical diggers in heavy soils should also be roughened.

A2.10.3 BACKFILL

Backfill is to consist of excavated material and ameliorated with BS 3882 Premium Grade Topsoil (or equivalent to any current BS) and slow release fertiliser at manufacturers recommended rates if required, following soil report recommendations.

Any surplus excavated from the pits / trenches is to be removed and either spread in location as agreed with the Landscape Architect or removed from site as decided by the Landscape Architect.

The backfilling shall be firmed down after 75-100mm covers the roots and shall be built up in layers, leaving the final level 30mm higher than adjacent levels after settlement. Any subsequent settlement over tree pits / trenches shall be allowed for or made good by the Landscape Maintenance Contractor at their own expense.

The Landscape Architect reserves the right to inspect all pits and trenches prior to the Landscape Maintenance Contractor being allowed to backfill.

All trees shall be watered thoroughly immediately after backfilling.

The tree shall be set in the centre of the pit or trench.

Any damaged roots should be cut to sound growth. The trees should be vertical and parallel to the stake where this method of securing is indicated, and on the leeward side. Trees and shrubs shall be planted at the depth at which they have been previously growing.

The depths at the centre of the pits shall be adjusted to ensure that the trees are planted to the depth of the nursery soil mark on the stem, and this shall be maintained on the finished ground level to allow for settlement after planting.

All cages, platforms, ties etc. shall be removed. All wrappings shall be removed, unless damage is likely to result from this operation, in which case, wrappings shall be left in place and the surplus cut away. Wrapping around top of any rootball should be loosened.

Trees with the crown tied-in may have the fastenings removed and the branches freed before or after planting at the discretion of the Landscape Maintenance Contractor.

A2.11 SHRUB AND HERBACEOUS PLANTING

A2.11.1 PLANTING COMPOST

A 50mm thick consolidated layer of planting compost shall be spread over shrub beds and well worked into the soil during cultivation. Prior to delivery, the Landscape Architect shall approve a sample load for quality.

A2.11.2 POLYMER

Polymer shall be incorporated into the soil during cultivation at the manufacturers recommended rates.

A2.11.3 SETTING OUT

Planting beds shall be pegged out in accordance with the planting plan. Figured dimensions shall be taken for preference, but where these are not given and the limits are not defined by paths, paving or other works, scaled dimensions may be used.

A2.11.4 PLANT SPACING

Plant spacing shall be carried out in accordance with the contract drawings. The Landscape Architect reserves the right to adjust the exact position of specimen shrubs after they have been pegged out. The aim will be to space the plants evenly so that when established they will completely fill the areas indicated

as precisely as possible. The extent of the area to be filled by each species shall first be defined by plants spaced around the perimeter. The remaining plants shall then be used to fill the centre of the area in an informal manner avoiding straight lines and regular geometric patterns.

A2.11.5 PLANTING SHRUBS AND HERBACEOUS

Plants shall be planted at the same depth as previously grown, with care being taken to avoid any damage to the root system and stems. Sufficient soil shall be taken out from the bed to enable roots to be fully spread. Plants shall be placed in position showing their best side to the front, their roots to be fully spread out and packed around the fine soil. Care shall be taken to avoid breaking up the rootball of pot grown shrubs, but plants that have become pot bound shall have their roots gently eased out. The plants shall be gently shaken to allow the fine soil to surround the roots. As the rest of the soil is returned it shall be well consolidated and firmed around the roots to eliminate all air pockets.

A2.12 COMPLETION OF PLANTING

A2.12.1 PRUNING

Immediately after planting, cut back carefully any damaged, dead or diseased branches and remove any weak, thin or malformed growth back to a healthy bud for shrubs or herbaceous plants or to the branch collar for trees.

A2.12.2 WATERING

Water all trees and plants thoroughly immediately after planting until field capacity is achieved.

A2.12.3 MULCH

After watering spread a minimum 50mm deep layer of bark as specified above over all plant beds. The mulch shall be moist at application. After mulching, all stems, particularly of ground cover species shall be arranged above the surface of the mulch.

A2.12.4 REPLACEMENT OF PLANTS

The Landscape Maintenance Contractor shall make good, at their own expense, all losses of trees, shrubs and other material from whatever cause other than vandalism during planting. Losses will be judged on whether plants are actively growing during the late summer period after planting when a plant check will be made by the Landscape Architect.

Replacement stock shall be of a standard to that specified above and in the original specification showing vigorous growth and free from disease.

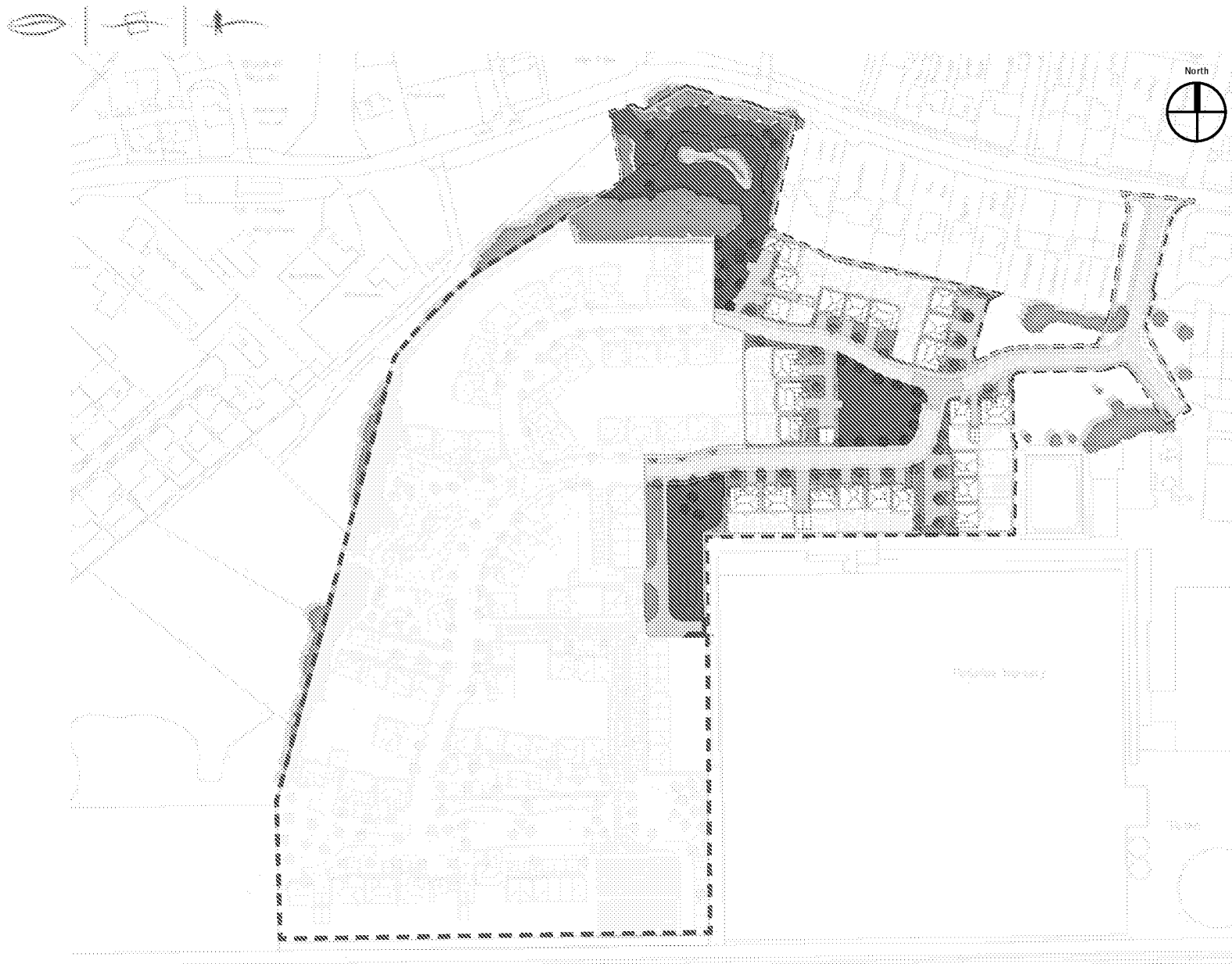
A2.12.5 MAINTENANCE OF NEWLY PLANTED TREES AND SHRUBS AND HERBACEOUS PLANTS

The Landscape Maintenance Contractor shall maintain the replacement planting to the same standard as the rest of the planting and in line with the maintenance and management document.

The Landscape Maintenance Contractor shall maintain and guarantee the plants from the time of planting and for the 12 months and subsequently in accordance with the contract.

APPENDIX C

MOWING REGIME PLAN



Legend

-  Site boundary
-  Phase I boundary

-  Well maintained grass for front gardens and service margins
-  Frequently mown grassed areas for amenity use
-  Wildflower meadow areas

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Mowing Regime Areas Phase I

Client:
Redrow Homes Southern Counties

Drawing Number: 2600-SK-03	Date: 07/10/16	Revision: P1
Scale: nts @ A4	Drawn by/ Chk: AC/jh	