



Amethyst Lane, Reading Landscape Maintenance Strategy

RBC-ALR-HTA-L_RP-0001

November 2023

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Landscape Proposals

The landscape proposals for Amethyst Lane create a green and welcoming environment for the new residents, with over 220m2 of communal green space for the residential properties, and over 370m2 of amenity space for the Respite Facility.

A raingarden along the north-south axis in the centre of the site forms the heart of the residential development and offers a number of benefits including sustainable urban drainage, the opportunity for tree planting and, and wildflower planting to attract pollinating insects.

An existing overgrown hedge to the north of the site is to be cut back and managed as a hedge to provide screening and a wildlife corridor.

The group of two category C trees to the south east of the site are retained within communal open space which provides the opportunity for some wildflower and scrub planting and habitat features at the entrance to the proposed houses to support biodiversity.

Mixed native hedges to front gardens and tree planting between parking bays create a greener and more pleasant pedestrian environment.

The Respite Facility garden has been designed to meet the needs of the users, with circulation loops, smooth surfaces, colour contrast and careful placement of seating areas. The three gardens would provide a range of functions including a sensory garden, a wildlife garden and a social garden for external dining and group activities.

- Key:
- ① Boundary hedge
 - ② Rear garden
 - ③ Raingarden
 - ④ Existing tree retained
 - ⑤ Proposed tree
 - ⑥ Respite amenity
 - ⑦ Planting for wildlife



Proposed Plan

1.1 Landscape Treatment

Planting Types

Several planting types are proposed within the development:

Existing Native boundary

There is an existing line of trees along the northern boundary that we are proposing to cut back and retain as a hedge. Species include a mix of hawthorn, sycamore, holly, hazel, and blackthorn. This hedge would need an annual maintenance prune to prevent it getting too large. Hedge to be maintained at a maximum height of 1.8m.

Boundary hedge

A native hedge to define property boundaries, requiring two cuts a year to retain shape. The hedges to the property frontages will be maintained at 1.1m high and circa 800mm wide and will be supplied as an instant hedge, 1.2m high. Hedges to the rear gardens create a wildlife corridor and will be allowed to grow taller to 1.8m high.

Respite Facility garden

Outdoor spaces host a multitude of proven benefits for those living with complex neurological conditions. The respite facility garden will be designed to cater for the needs of those with hypo or hyper-sensitivities. The garden will contain herbaceous perennials, shrubs, and some ornamental standard and multi-stem trees.

Raingarden

The raingarden is proposed to be planted with a mix of grasses, herbaceous perennials and shrubs - all tolerant of both dry and wet conditions.

Lawn to private gardens

Amenity turf to RBC Standards. Turf to include Smooth stalked meadow grass of 15%, Browntop Bent Grass of 20%, Creeping Red Fescue of 20%, Chewing Fescue of 20%, and Pedigree Perennial Rye Grass of 20%.

Lawn to communal amenity

Species rich lawn turf WFT-Species-Rich-26 as supplied by Wildflower Turf Ltd. The lawn turf is made up of 26 different species.

Privacy planting

A mix of hardy, evergreen, low growing (and low maintenance) shrubs to provide privacy to homes.

Shade tolerant understorey planting

This would comprise a shade tolerant wildflower turf - such as WFT-Shade-41, Shade tolerant wildflower turf by Wildflower Turf, supplemented with native bulbs and ferns (wood anemone, primroses, snowdrops, Dryopteris affinis, Asplenium scolopendrium for example).

Scrub planting

Scrub planting for wildlife is proposed with species including blackthorn, hawthorn, hazel, elder, dogrose, dogwood and brambles.

Refer to the Landscape Planting Plan (DR-0902) and Soft Landscape Schedule (SH-002) for further details of proposed planting.



Plan of proposed planting types

1.2 Proposed Trees

Proposed trees will primarily be native or wildlife friendly species and (as per RBC policy) should offer diversity of the 30:20:10 ratio – no more than 30% of any one family, no more than 20% of any one genus and no more than 10% of any one species.

The current proposals include the provision of 43 new trees including:

- Acer campestre 'Elsrijk'
- Alnus glutinosa 'Laciniata'
- Amelanchier lamarckii
- Betula 'Edinburgh'
- Cercis siliquastrum
- Crataegus laevigata
- Hippophae salicifolia
- Koelreuteria paniculata
- Quercus castaneifolia 'Green Spire'
- Sorbus 'Autumn Spire'
- Ulmus 'Columella' (suitable for street where turning refuse vehicles necessitate a columnar form)

Trees will be provided within rear gardens, to benefit both the residents and wildlife, with species selected for their compact size.

Soil cells will be used where required to create adequate soil volumes for proposed trees. Refer to Soil Plan DR_0901 for details.

Additional trees are proposed as part of the off-site landscape and ecology mitigation strategy. The applicant will discuss and agree the strategy with Reading Borough Council.

Refer to the Landscape Planting Plan (DR-0902) and Soft Landscape Schedule (SH-002) for further details of proposed planting.

Key:

- Proposed tree
- Trees to private rear gardens



Plan Layout - Proposed Trees

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Soft Landscape Maintenance Overview

The quality of the public realm is of fundamental importance to creating a successful neighbourhood. The masterplan has established the principles for a substantially green new development focused around a linear raingarden that supports sustainable drainage and biodiversity.

A traditional street provides access and parking for the new homes. Street trees and hedged front boundaries combine to create an attractive leafy environment.

The public highway drains into the road-side raingarden and permeable parking bays provide sustainable urban drainage for surface water run-off.

Cycle parking and bins will be in front gardens where they will be softened and largely screened by the hedges.

To the rear of the houses are private external patios for storage and to allow access for maintenance such as window cleaning etc. An amenity lawn and small tree make up the rest of the garden. The gardens will have a secure boundary treatment and will be well screened from the north with an enhanced eco-corridor and existing hedgerow bordering the site. This hedge will be retained and reinforced with new native planting where required and a native hedgerow seed mix established along it's margins.

Management and maintenance is fundamental to the successful creation of places, where landscapes take time to thrive and mature.

Careful management of the landscaped areas within the development will ensure the establishment of a flourishing, attractive and durable landscape for residents, visitors and wildlife.

Publically accessible landscaped areas within the site shall be maintained in a healthy, weed and litter free condition.

The following pages outline some high level maintenance objectives that we recommend to keep the landscape looking its best.

For all soft landscape:

- Maintenance to be carried out in accordance with BS8545:2014 and shall include watering to establishment, pruning, pest and disease control, weeding, adjusting tree guys, tree security checked, stakes, ties, topping up mulch and applying fertiliser, and mowing grass.
- Ornamental shrubs and herbaceous planting to receive targeted pruning with dead flower heads to be removed from herbaceous plants.
- Maintain a weed free area around each tree and shrub, across entire planting bed.
- Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
- Perennial shrubs to have dead growth cut back in February or March each year to allow new growth to flourish. Care must be taken to avoid any damage to new growth or emerging shoots.
- Pruning to be in accordance with good horticultural and arboricultural practice
- Biodegradable arisings, such as grass cuttings, tree roots, shrub and tree prunings will be removed to a recycling facility so that they can be composted.
- Any plants which fail to thrive will be replaced.

2.1 Maintenance - Hedges

■ Native Hedge in Rear Garden

There is an existing line of trees along the northern boundary that is proposed to be retained as a hedge. The species include a mix of hawthorn, sycamore, holly, hazel, and blackthorn. This hedge would need an annual maintenance prune to prevent it getting too large. Whilst generally maintenance pruning is best done in the summer, timing for pruning should consider the potential for nesting birds, as it is an offence under the Wildlife & Countryside Act 1981 to damage or destroy the nest of any wild bird while it is in use or being built. The bird nesting season is usually considered to run from March to August. Hedge to be maintained at a maximum height of 1.8m.

Inspection of existing hedgerows: twice a year and additionally after strong storms.

■ Front Boundary Hedge

A mixed native hedge to define property boundaries, requiring two cuts a year to retain shape. The hedge would be maintained at a height of 110cm and a width of circa 80cm.

Hedges would require:

- Formative pruning: In winter, just after planting, and for the first two years after planting
- Maintenance pruning: Each summer (taking care of nesting birds)

Encouragement of new hedgerows:

- Ensure that mechanical equipment does not damage the bark
- Eliminate competition by removing grass and weeds from rooting area.
- Watering - Minimum once per week during growing season or with greater frequency as necessary to ensure successful establishment.



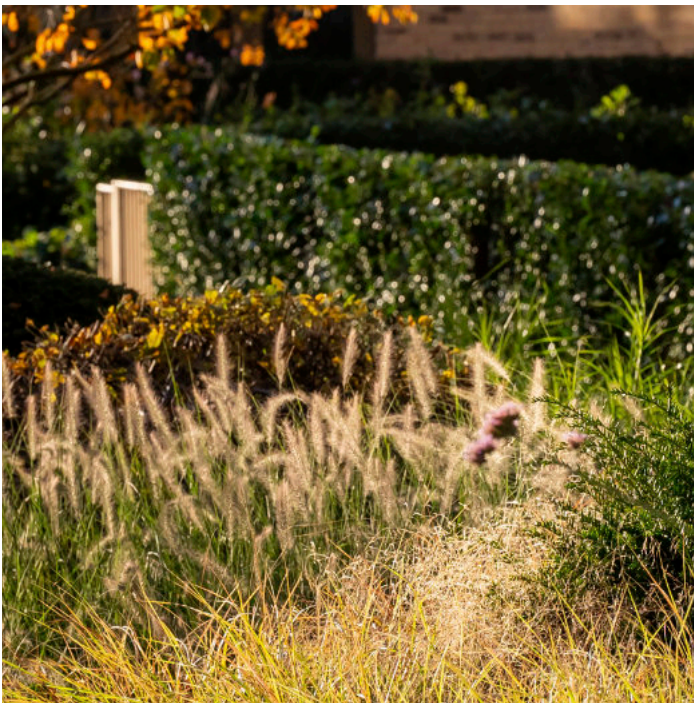
Location of hedges



Mixed native hedge



Front boundary hedge - example - Beech hedge
Photo credit Nick Harrison



Front boundary hedge - example - Privet hedge
Photo credit Nick Harrison

2.2 Maintenance - Respite Centre Garden

Outdoor spaces host a multitude of proven benefits for those living with complex neurological conditions.

The respite centre garden will be designed to cater for the needs of those with hypo or hyper-sensitivities, with careful consideration given to the choice of plants and hard materials to create a calm environment.

The garden will likely contain herbaceous perennials, shrubs, and some ornamental multi-stem trees situated within borders or raised beds.

Ornamental planting maintenance requirements:

- Mulching groundcover plants - once a year in spring
- Pruning groundcover plants - target pruning twice a year in spring and late summer
- Pruning shrubs and remove dead wood - target pruning once a year
- Remove dead flower heads - within flowering season, twice a year
- Pruning herbaceous plants - end of flowering season or early spring
- Pruning ornamental grasses - once a year in spring
- Weed control - as necessary
- Watering - as necessary to ensure successful establishment

The garden is also proposed to contain an arbour, seating areas, looped circulation trails and a storage shed.



Location of Respite Centre garden



Alliums - species suited for those with Hypo or Hyper-sensitivity



Sensory Trust - Hampton Court show garden



Quiet seating area within textured herbaceous perennial planting



Shade structures enable outdoor dining in hot weather



A simple palette of materials but laid in an interesting way creates a visually rich but still calming environment

2.3 Maintenance - Raingarden

A raingarden is proposed along the north-south street. The predominantly dry SuDS feature contributes to surface water management as well as enhancing biodiversity.

The raingarden is proposed to be planted with shrubs, grasses and herbaceous perennials, along with some shrubs and trees that are tolerant of both wet and dry conditions.

General maintenance

- Remove rubbish and debris to ensure movement of water is not impeded
- Check for pests and diseases
- Annual monitoring for the presence of non-native invasive plant species and removal as required
- Pick out any non desirable invasive spp

Trees & structure shrubs within raingarden

Structure shrubs such as dogwood do best when cut back hard in March. This encourages fresh new growth which provides the best colour.

Trees planted within the swale may benefit from occasional pruning to keep their size and shape in check. Pruning should be carried out by a qualified arboriculturist.



'Grey to Green'- raingarden Sheffield



Location of raingarden

2.4 Maintenance - Understorey Planting

Perennial Understorey Planting

A mix of hardy low growing structure planting and herbaceous perennials to attract pollinating insects are proposed to the base of the street trees.

Ornamental planting maintenance requirements:

- Mulching groundcover plants - once a year in spring
- Pruning groundcover plants - target pruning twice a year in spring and late summer
- Pruning shrubs and remove dead wood - target pruning once a year
- Remove dead flower heads - within flowering season, twice a year
- Pruning herbaceous plants - end of flowering season or early spring
- Pruning ornamental grasses - once a year in spring
- Weed control - as necessary
- Watering - as necessary to ensure successful establishment

Shade Tolerant Understorey Planting

A shade tolerant understorey is proposed beneath the existing trees at the entrance to the site, and to the north east.

This understorey is proposed to comprise a shade tolerant wildflower turf – such as WFT-Shade-41, Shade tolerant wildflower turf by Wildflower Turf, supplemented with native bulbs and ferns (wood anemone, primroses, snowdrops, Dryopteris affinis, Asplenium scolopendrium for example).

Wildflower maintenance

The wildflower can either be cut back once in September to early October, or twice - once in late May/early June, then again in mid-October.

A two-cut regime is well worth considering for a number of reasons. This regime is most useful when soil fertility is high. Cutting in late May/early June, the first 'high' cut should be to approximately 8 to 10 inches off the ground (200mm to 250mm) to remove the flower heads but leaving enough plant stems and leaf area to regenerate. Once the cutting has been completed and all cuttings removed, give the area a good soaking with water to encourage the next flush of growth. Introducing this early summer cut and removal will mean your second Autumn cut and removal will be later that year, up to mid-October. This ensures that both cuts take off the maximum amount of green material and this is a way to ensure the removal of the most amount of nutrients to help reduce overall soil fertility.

After several years soil nutrition will be significantly reduced which will ensure a lovely open meadow that maintains species diversity and maximises colour and variety.

Cutting can be achieved by either using a manual or powered scythe, hedge trimmer or strimmer and raking the clippings off to compost. Alternatively, a flail mower, such as a Profihopper, may be used with cuttings collected as you go.

Once you have cut the tall, woody material, a rotary mower on a high setting can be used to go over the area again to neaten it up and collect the final cuttings. Whichever method you choose, make sure the tools are sharp or use tools that have reciprocating blades to get an efficient clean cut and reduce the need to go over the same area multiple times.

If you have a larger sized meadow, it is preferable to cut in stages to be kinder to wildlife and allow any mammals or insects to translocate; consider leaving a neighbouring strip that is left for a month or so before cutting.

Cutting the plants back to 1 to 2 inches (25mm to 50mm) in length is a vital part of their life-cycle and ensures that re-growth will continue year-on-year. The most important part of a maintenance cut is to ensure you take all of the clippings away. In order to control grasses in your meadow, nutrient depletion is vital, and any rotting material left on the meadow will only enrich the soil.

The cutting of your meadow should ideally take place when the wildflowers have set and shed their seed. Not only does this tidy up the area for the onset of winter, but it also stops the senesced summer growth from covering the growing plant in a layer of rotting plant material. An open sward over the winter ensures healthy, disease-free plants which can benefit from what light is available to them during these months.

When you do decide to give your meadow its annual cut, it is always advisable to choose a dry day to cut the meadow back. Dry cuttings are easier and cleaner to handle. You may find that your meadow starts to grow again; this is because some species will be quick to utilise any freshly created space, thus taking advantage of the new opportunity that they have been given. New growth, post-cut, is very acceptable and is the last chance the meadow has to green-up, ready for the winter when it will become dormant.

As spring approaches, the wildflowers and grasses will be in the perfect position to develop flowers and seed heads quickly to repeat their perennial cycle, thus guaranteeing a beautiful and biodiverse wildflower meadow year after year. (wildflower maintenance recommendations taken from Wildflower Turf.co.uk)



SuDS wildflower turf



Location of understorey planting

2.5 Maintenance - Green Roofs

Post Installation Maintenance Requirements

To ensure that the plant material establishes immediately after installation some aftercare may be needed. This will be dependent upon season of installation and climatic factors.

Generally, for autumn to spring installations, no procedures additional to those outlined below will be necessary. For summer installations a temporary irrigation system may be needed.

The following are general guidelines for maintenance related to extensive type Green Roof Systems. Levels of maintenance will be affected by system composition.

Removal of any undesirable plant material.

The term 'weed' is inaccurate, one man's weed is another man's establishment of increased biodiversity. Dependent upon material and site requirements removal may be by hand or by a point application of a herbicide. Procedure to be carried out at all maintenance intervals. Assessment of problem weeds and correct timing of the program is essential.

Checking for pest and diseases.

The major problem that will be encountered is infestation by aphids. This can be dealt with using environmentally friendly measures. Aphid attack is most severe when the plants are under stress. Ensuring that the system has the correct nutrient and water retention capacities will minimise this problem. Procedure to be carried out at all maintenance intervals.

Application of slow release nutrient source.

Correct nutrient status within the substrate is important. Previous fertiliser applied, season, location and nature and condition of plant material determine the levels of nutrients to be applied. Procedure to be carried out when deemed appropriate.

System correction.

Extensive type Green Roofs are low maintenance because system design should be such that the desired plants are encouraged whilst undesirable elements are discouraged. Small localised areas (e.g. north side of any roof penetration) of the installed planted element may be found to not satisfy these criteria and undesirable plant material MAY colonise. This plant material should be removed and the substrate conditions amended to ensure that the desirable plants flourish. Procedure to be carried out as part of inclusive 12 months maintenance.

Checking of gutters and drain ways for debris and its removal.

Procedure to be carried out at all maintenance intervals.

Removal of flower heads after flowering.

Dependent upon individual aesthetic requirements of the client. Late summer/early autumn procedure that can be included in any maintenance agreement.

Removal of leaf litter.

The ideal position for Green Roof Bio-solar installation is in full sun. In certain situations adjacent trees could shed leaves onto the roof surface. Dependent upon quantity these may need to be removed. This could be done with a leaf blowing machine. Late summer/early autumn procedure that can be included in any maintenance agreement.

Frequency of maintenance visits.

As a general guide, frequency of maintenance visits for a well designed system will be as follows:

- **Year one: 2-3 visits**
- **Year two and subsequent years: 1-2 visits**

Information taken from ICB (Waterproofing) Limited

<https://www.icbprojects.co.uk/solutions/green-roof-systems/bio-solar>

<https://www.icbprojects.co.uk/solutions/green-roof-systems/wildflower-systems>



Sedum roof



Biosolar roof

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