

LANDSCAPE & BIODIVERSITY PROPOSALS
4.17 THE RILL GARDEN - PLANTING CHARACTER



Ligularia



Primula veris



Persicaria



Caltha palustris



Hottonia palustris



Rodgersia

The rill planting would predominately be damp loving grasses and perennials. The planting would be designed to flourish in an environment that would flood in times of heavy rain.

A few carefully placed small shrubs and trees would give year round interest and structure. In winter the planting would die back and the rill would become the focal point of the space.

TREES:

- Betula sp.
- Prunus sp.

SHRUBS:

- Cornus alba
- Salix capraea (coppiced)
- Frangula alnus



Eriophorum angustifolium



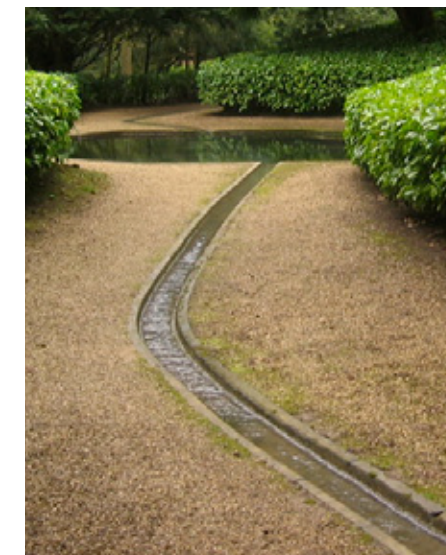
Carex sp



Molinia sp



Carex sp.





LANDSCAPE & BIODIVERSITY PROPOSALS
4.19 THE NATIVE WOODLAND - PLANTING CHARACTER



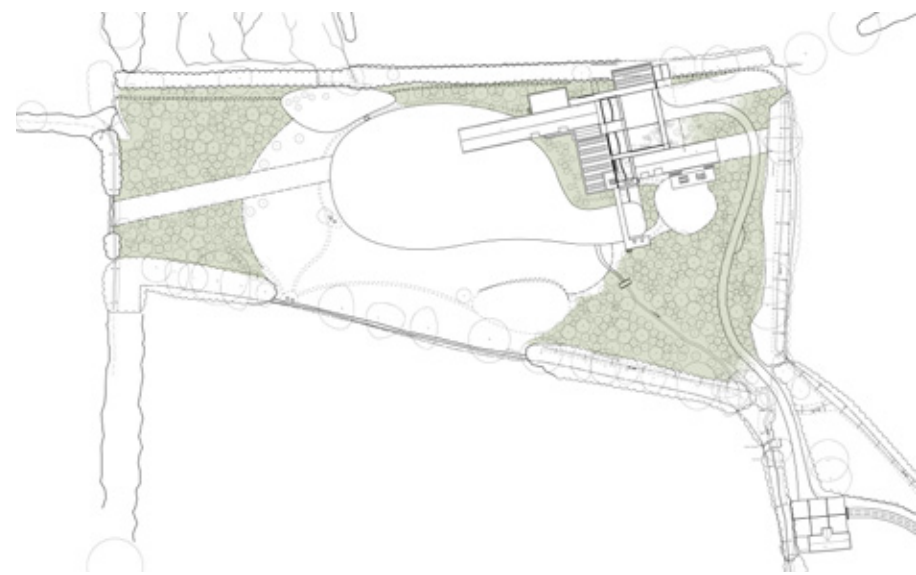
Malus sylvestris



Corylus avellana coppice with buebells



Prunus padus



The ash plantation will be replaced with a mixed native woodland. This could be gradual (page 4.4) or may need to be immediate, depending on how ash dieback presents its self within the site.



Filed maple



Betula pubescens & pendula



Ilex aquifolium



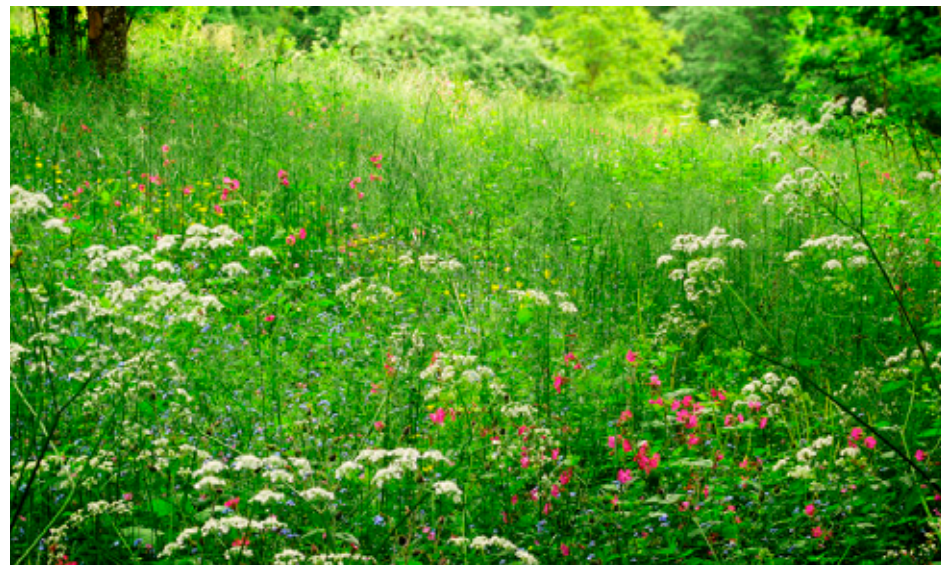
Quercus robur

TREES:

- Quercus robur
- Ulmus procera
- Acer campestre
- Betula pubescens
- Betula pendula
- Prunus padus
- Ilex aquifolium
- Crataegus monogyna
- Malus sylvestris

SHRUBS:

- Cornus alba
- Salix caprea
- Frangula alnus
- Corylus avellana
- Prunus spinosa blackthorn
- Rosa canina dog rose
- Sambucus nigra elder



Woodland meadows will be encouraged to colonise, or where necessary introduced to the proposed woodland.





LANDSCAPE & BIODIVERSITY PROPOSALS
4.22 THE NATIVE MEADOW - PLANTING CHARACTER



Hordeum secalinum



Rhinanthus minor



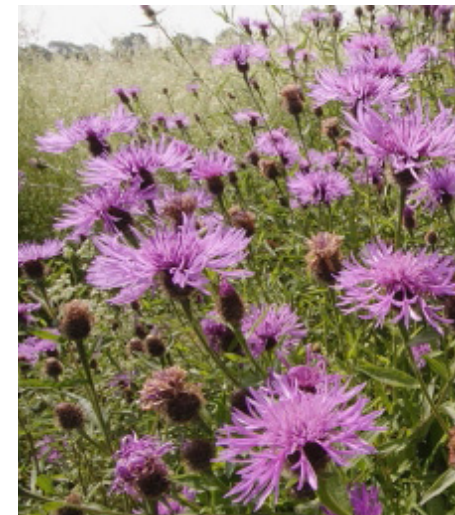
Lotus corniculatus



Briza media



Achillea millefolium



Centaurea nigra



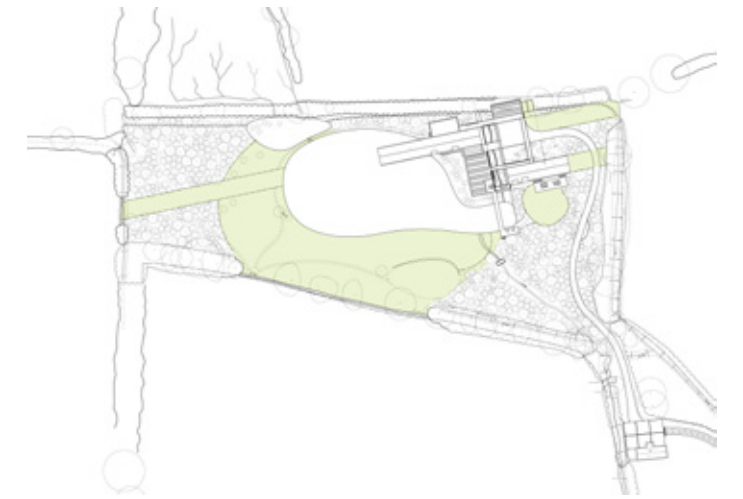
Lychnis flos-cuculi



Gladiolus byzantinus (with buttercups)



Camassia cusickii



The views along the southern boundary will be opened up, either by allowing the hedgerow to grow out or lay it. This will visually link the development into its surrounding landscape context.

The views out to the south will be over a native meadow. A simple network of mown paths will wind through this meadow, linking various destinations and joining together the key areas of the wider landscape.

There may be enough of a seed bank within the soil (prior to the Ash plantation) to allow a meadow to establish through management. If not, then part or all of the meadow would be sown with meadow seed suitable for a clay soil. In key areas bulbs that naturalise may be added such as *Gladiolus byzantinus* and *Camassia cusickii*.





THE SETTING FOR THE HOUSE

Application boundary

Ownership boundary

3m wide Spray tar and chip tier access track. Gravel will be locally sourced and chosen to be recessive in the landscape.

Tarmac with tar bonded gravel passing place.

THE DAMP MEADOW

THE TOP FIELD
(Not within ownership boundary)

Tarmac surface forming 6m threshold with road. Timber gate to match adjacent field.

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Scale 1:1250 @ A3

LANDSCAPE & BIODIVERSITY PROPOSALS

4.25 WIDER LANDSCAPE - THE OLD BARN & DAMP MEADOW ENHANCEMENT

HEDGEROW

The varied and dense native hedgerow will be maintained by:

- a) Hedge trimming in Jan and Feb.
- b) To avoid gaps by being laid or coppiced.
- c) Gaps should be planted up in conjunction with the coppicing.
- d) Any old or dying hedgerow trees should be retained and a similar replacement tree planted.
- e) Some hedgerow cuttings can be left in habitat piles.

WOODLAND

The existing native woodland to the north of the barn would be extended north and west linking hedgerows and fragmented groups of trees. This will be developed along side the landscape proposals for the new house.

HEDGEROW

The varied and dense native hedgerow will be maintained by:

- a) Hedge trimming in Jan and Feb.
- b) To avoid gaps by being laid or coppiced.
- c) Gaps should be planted up in conjunction with the coppicing.
- d) Any old or dying hedgerow trees should be retained and a similar replacement tree planted.
- e) Some hedgerow cuttings can be left in habitat piles.

MOTHS and BUTTERFLIES
The damp meadow and hedgerow will provide valuable habitat for Orange Tip, Brimstone, Marbled White and Small Copper butterflies.

BATS
Bat roosts would be integrated into the roof and stone walls of the building. These will include crevice features for Pipistrelles and Whiskered bats

BARN OWL
A Barn Owl nest box would be integrated into the gable end of the barn.

KESTRELS
Nest boxes would be introduced into one of the hedgerow Ash trees on the western field boundary.

ENCOURAGE GROUND NESTING BIRDS
eg. Skylarks were not present on site this year but they maybe encouraged to use the meadow when the new management scheme is introduced.



PROPOSED STREAM ENHANCEMENTS:

- a) Self seeded shrub species will be removed from the stream.
- b) The historic flooding regime will be restored by:
 - Making sure the waterbody in the woodland does not retain floodwaters.
 - Possible interventions at point 3 to retain flood water within the damp meadow.

THE OLD BARN

The Old Barn would be repaired with the aim of accommodating biodiversity. It would also become an occasional place for watching and listening to the surrounding wildlife.

PROPOSED DAMP MEADOW ENHANCEMENTS:

- A traditional management regime will be implemented:
- a) Late July / August hay cut.
 - b) Hay baled and removed from site .
 - c) Meadow lightly grazed by cattle during autumn and early winter.
 - d) A few piles of grass cuttings around the edges for grass snake to lay their eggs in.

LANDSCAPE MANAGEMENT PROPOSALS

INTRODUCTION

This information can be used to guide future management decisions and can be used as a source of reference.

The Plan sets out the design intentions and long-term management objectives for the landscape, with programs for implementation along with how the various habitats and elements of the landscape will be maintained and managed.

A procedure for monitoring and reviewing the Management Plan is set out to ensure its successful implementation and identify any adjustments that need to be made.

LONG TERM AIMS AND OBJECTIVES

The over-riding aim of the Management Plan is to ensure the successful implementation and future management and maintenance of the landscape proposals so as to -

- Provide an integrated setting for the new house and associated buildings.
- Increase the wildlife and ecological value of the landscape and to protect any existing identified important habitats and species.
- Incorporate a modest footprint of ornamental gardens, integrated into and adjacent to the new house.
- Retain and enhance the character of the landscape and improve the visual quality of the site.
- Provide a sustainable management approach that understands and is sensitive to the aesthetics and long-term design objectives of the Landscape Proposals.

MANAGEMENT OBJECTIVES AND METHODS

The management schedule has been divided into six sections to provide objectives and broad prescriptions for specific habitat types or landscape components as follows

1. Woodlands planting.
2. Existing mature trees and proposed feature trees
3. Hedgerows
4. Grasslands and meadows
5. The lake and wetlands
6. Ornamental gardens

WOODLAND MANAGEMENT

Objectives

1. Ensure that the new plantings become well established and develop according to the landscape proposals
2. To develop the woodlands as a valuable wildlife habitat
3. To protect & maintain any existing planting within new woodland areas
4. To monitor and control invasive or undesirable species

Methods

Establishment of new trees (3-5 year period)

- Maintain a weed free area of at least 1m diameter at the base of newly planted trees by fitting mulch mats
- Maintain rabbit guards / tree tubes
- Maintain stakes and tree ties
- Check trees are firmed in and have not become disturbed due to wind-rock or soil disturbance
- Any dead or poorly established trees should be replaced. This can be done at a rate of one replacement for every two failures if proportion of failures is low. If high proportions of the same species have failed they may not suit the site or could be sub-standard from the supplier. If failures are in clusters, then site conditions are more likely the cause. Any under-lying problems should be addressed before replanting.
- Treatment of any pests and diseases

Establishment of field and ground flora

For the first three to five years after tree planting, the trees will be subject to maintaining a weed free area at their bases by mulching. This means that it will not be possible to fully establish the field layer until this regime is completed. The area will then be seeded with a native woodland grass and wild flower mix.

Existing trees

- Prune any dead, diseased or damaged wood
- Felling or pruning of any storm damaged or other dangerous trees as required. Major works should be undertaken by a qualified arboriculturist.
- Some trees with cracks should be left for bats.

Coppice

- Once established, areas of hazel will be coppiced on an 8-10 year cycle
- Each successive coppice should be adjacent to the previously cut area
- Substantial amounts of 'lop and top' should be removed to prevent smothering ground flora.

General

- Leave as much fallen and standing dead wood as possible as additional habitats. Wood piles / stacks can also be created
- Any dangerous trees should be felled but left in as large a piece as possible and in contact with the soil to provide additional habitat.
- Avoid woodland and tree management between March and July inclusive to avoid disturbing breeding birds
- Thinning of the new woodland will be necessary to ensure successful development. The first thinning should take place after 10 years, with a second thinning in another 10 years.
- Any replacement planting should be in line with the landscape proposals

EXISTING MATURE TREES AND NEW FEATURE TREES

Objectives

1. To protect and maintain existing mature trees
2. To ensure successful establishment and development of new plantings according to the landscape proposals
3. To develop and enhance their wildlife value
4. To enhance the visual amenity of the site

Methods

Establishment of new trees (3-5 year period)

- Maintain a weed free area of at least 1m diameter at the base of newly planted trees by fitting mulch mats.
- Maintain rabbit guards / tree tubes
- Maintain stakes and tree ties
- Maintain fences of enclosed groups of trees
- Check trees are firmed in and have not become disturbed due to wind-rock or soil disturbance
- Any dead or poorly established trees should be replaced in line with the landscape proposals. Any underlying problems should be addressed before replanting.
- Treatment of any pests and diseases

Existing trees

- Prune any dead, diseased or damaged wood
- Felling or pruning of any storm damaged or other dangerous trees as required. Major work should be undertaken by a qualified arboriculturist. Any tree works should be in accordance with the status of the registered landscape.

HEDGEROW MANAGEMENT

Objectives

1. To protect and maintain the existing hedgerows
2. To maintain and enhance their character within the landscape
3. To ensure the successful establishment and development of newly planted hedgerows
4. To enhance the wildlife value of the hedgerows

Methods

Newly planted Hedgerows

- Maintain a weed free base to the hedge for the first 3 to 4 years by hand weeding and topping up of mulch.
- In the first autumn after planting, cut back to 450mm above ground to encourage strong basal growth. In the second winter cut back new growth by 50% and in the third winter trim laterals and leading shoots to shape.
- Check hedge in spring at bud burst for any failures and replace immediately, so that a growing season is not lost.
- If the spring and summer following planting are dry the hedge should be watered.

Existing hedgerows

- Trim hedgerows on a rotational 2-3 year basis. Cut different parts of the hedges each year to encourage a variety of growth. A dense 2 metre high hedge holds the greatest variety of wildlife.
- Hedge cutting should be avoided between 1st March and 31st July to protect breeding birds and allow all berries to be eaten. Ideally, cutting should take place at the end of winter but could be brought forward to early winter if access to land is difficult.
- Maintain hedge structure and fill any gaps by planting, laying or coppicing
- Maintain a margin of 1 – 2 metres either side and encourage the growth of tussocky grasses at the base of the hedge to suppress weeds such as cleavers.

GRASSLAND AND MEADOW MANAGEMENT

Objectives

1. To develop and enhance the wildlife value of the grasslands and meadows
2. To increase the species diversity
3. Translocation of areas of suitable existing wild turf
3. To obtain native seed of a local provenance if possible.
4. To enhance the visual amenity of the site
5. To monitor and control invasive and undesirable species

Methods

The best and most appropriate methods for creating and managing the meadows and improving species diversity in the Damp Meadow will be developed in the next stages of the landscape design. Ecology by Design will provide input to optimise the successful development of the meadows. Once determined, these methodologies will be included in the management plan, but broad prescriptions would include: -

- Withholding all nutrient application
 - Reduction in the fertility of the sites
 - The meadows would probably be managed with a single cut at the end of August to allow wildflowers to drop their seed, but specific regimes will be developed that are specific to the site.
- The cutting regime will be affected by considerations such as: -
- When the latest and most important plants ripen and shed seed
 - When invertebrates have completed their lifecycle
 - When the weather is dry
 - The need to control certain plants in the sward
 - The height of the grass
- All cuttings / arings should be removed once seed has been allowed to drop
 - Any undesirable or invasive species will be controlled by hand weeding.

LAKE AND WETLAND MANAGEMENT

Objectives

1. To establish and develop the lake and its associated marginal plantings as valuable wildlife habitats.
2. To maintain the lake it's banks and marginal plantings so as to provide an attractive, naturalistic setting within the property.
3. To monitor and maintain the water quality of the pond
4. To monitor and control any invasive or undesirable species

Methods

Maintenance related to the planting may be necessary, such as coppicing or pollarding bank-side trees and shrubs, or dividing and transplanting aquatics, but this will be added to the maintenance schedules as the detail design for these areas develops.

Routine maintenance will involve

- Checking new marginal planting during establishment and replacing any failures.
- Checking and clearing any debris around inlets and outlets to the pond.
- Maintaining adequate light levels to the pond by clearing encroaching woody species.
- Removing excessive leaf fall.
- Removing excessive plant or algal growth. The cuttings should be left adjacent to the pond for at least 48 hours to allow wildlife to return to the water. The waste can then be composted.
- Maintaining the banks and edges.
- Checking structural soundness of any decks or jetties and making any necessary repairs.

ORNAMENTAL GARDEN MANAGEMENT

Objectives

1. To provide an integrated, high quality setting for the new house.
2. To ensure the successful establishment and development of the new plantings in accordance to the landscape proposals.
3. To ensure the plantings are maintained in a healthy condition.
4. To monitor and control undesirable species.

Methods

The ornamental garden areas around the house will be developed in the next stages of the landscape design process. These will include tree, shrub and herbaceous plantings along with areas of species rich lawn. Once finalised, detailed annual maintenance cycles for specific areas can be added to the Management Plan.

General maintenance during establishment will include: -

- Mulching all new planting areas to a depth of 50mm for herbaceous areas and 75mm for shrubs and trees, using a fine grade bark.
- Re-applying mulch in winter / early spring to the appropriate depth.
- Replacing any failures and identifying and remedying any under-lying problems.
- Ensuring all trees and shrubs are well firmed in and have not been disturbed by wind-rock or soil disturbance.
- Controlling undesirable species by hand weeding.
- Regular watering to promote good establishment.
- Installation and maintenance of rabbit fencing where appropriate.

General seasonal maintenance after establishment will include: -

Late winter / early spring

- Mulching and feeding plant beds
- Spiking lawns to aid drainage
- Cutting back perennial winter 'skeletons'
- Lifting and dividing perennials
- Pruning late flowering shrubs and shrubs for stem colour

Spring and summer

- Control weeds
- Watering as necessary
- Mowing and maintaining lawns
- Supporting and tying in climbers
- Pruning of spring flowering shrubs
- Dead-heading / cutting back perennials for second flowering
- Trimming of hedges

Autumn / early winter

- Bulb planting
- Harvest fruit trees
- Last cuts to lawns
- Clear fallen leaves
- Cut back selected perennials
- Pruning of trees as required
- Coppicing

IMPLEMENTATION, MONITORING AND REVIEW

Implementation

An annual works programme of projects will be drawn up based upon the objectives and prescriptions for the various areas and habitats outlined in the previous section. These will identify specific tasks, timings and personnel (whether a member of staff or contractor). Each project should be prioritised to identify those essential to the long-term vision for the site. The programme will be divided into routine, on-going maintenance and one-off projects.

Monitoring

Annual monitoring of the site and the implementation of the works programmes will determine how successfully the Management Plan is being executed and if there are any shortfalls and adjustments that need to be made.

The site should also be monitored to establish whether the works programme is having the desired effect and that the aims and objectives of the Management Plan are being met. A site monitoring programme will be drawn up along with the works programme and this will: -

- Identify the areas, features or problems to be monitored
- Decide the key indicators or values to be recorded
- Decide how the information will be collected
- Allocate resources to complete the work

Review

An annual review will be built into the work programme and will provide a meeting between the Owners (or their representative) the estate manager / contractor to appraise the effectiveness of the Management Plan. The Landscape Design Team will supply input as necessary. In checking compliance to the plan the review will identify:-

- Whether all essential projects have been completed
- Provide feedback to amend the following year's work programme
- Identify any shortfall in resources
- An annual report could be produced if necessary.

A long-term review of the Management Plan will be undertaken after a period of five years. This will assess whether the Plan is still appropriate to the site and meeting the long-term aims and objectives of the Landscape Design Proposals and of the Owners.

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