

MAYTUM BARN
ROSEHILL (Previously part of MAYTUM FARM)
Vanity Lane, Linton,
Maidstone, Kent ME17 4BP
LANDSCAPE MAINTENANCE AND MANAGEMENT PLAN
(for approval of details under Condition 14 – Landscape and Biodiversity)



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1. Introduction

This Biodiversity Enhancement and Landscape Management and Maintenance Plan (LMMP) has been prepared in connection with the application for approval for details pertaining condition 14 of the conditional approval ref 21/506664/FULL for the demolition and re-building of a derelict barn into a dwelling with a sympathetic and bio-diverse surrounding garden.

This management Plan should be read in conjunction with the proposed landscape plan drawing no.NC/RH/L01 and L02 by Altaras Architecture Ltd, the Preliminary Ecological Appraisal by KB Ecology

This plan aims to respond to the following conditions:

Condition 12: Biodiversity enhancement scheme

The development shall be implemented in accordance with the approved Biodiversity Enhancement and Landscape Management and Maintenance Plan prior to first occupation of the approved dwelling and all features shall be maintained thereafter. The development shall proceed in accordance with the conclusions of the submitted preliminary ecological appraisal and the Biodiversity Enhancement and Landscape Management & Maintenance Plan.

Reason: To protect and enhance the ecology and biodiversity on the site in the future.

Condition 14: Landscape Scheme

Notwithstanding the submitted details, the construction of the barn hereby approved shall not commence above ground level until a landscape scheme designed in accordance with the principles of the Council's Landscape Guidelines (Maidstone Landscape Character Assessment Supplement 2012) has been submitted to and approved in writing by the local planning authority. The scheme shall use all native species as appropriate, no sycamores and no plastic guards, and show all existing trees, hedges and blocks of landscaping on, and immediately adjacent to, the site and indicate whether they are to be retained or removed. It should demonstrate the ragstone wall to the front of the dwelling to be retained and materials reused. It shall also provide details of replacement planting to mitigate any loss of amenity and biodiversity value, and include a plant specification, implementation details, a maintenance schedule and a [5] year management plan. [The landscape scheme shall specifically detail the tree line which is proposed to be retained and expanded as indicated by the applicant supporting statement and provide screening where possible to the dwellings to the north].

Reason: In the interests of landscape, visual impact and amenity of the area and to ensure a satisfactory appearance to the development.

Condition 15: Landscape Management & Maintenance Scheme

The approved landscaping scheme shall be in place at the end of the first planting and seeding season (October to February) following first occupation of the building hereby approved. Any seeding or turfing which fails to establish or any trees or plants which, within five years from the first occupation of the building, die or become so seriously damaged or diseased that their long term amenity value has been adversely affected shall be replaced in the next planting season with plants of the same species and size as detailed in the approved landscape scheme.

Reason: In the interests of landscape, visual impact and amenity of the area and to ensure a satisfactory appearance to the development.

The purpose of this LMMP is to:

- Set out the bio-diversity enhancement scheme proposed as an integral concept behind this landscape plan
- Describe the main landscape typologies and hard and soft landscape elements
- Establish the management aims and objectives and outline prescriptions for each typology/component of the scheme;
- Reference principal duties and responsibilities associated with landscape management and maintenance;
- Set out a typical annual maintenance schedule;
- Describe requirements for monitoring and review.

The Landscape design, biodiversity enhancement plan and LMMP have been informed by the following guidance, plans, surveys and drawings:

- The Design and Access statement and Landscape Plan
- KB Ecology – Preliminary Ecological Appraisal
- Moore Partners – Arboricultural Report and Impact Assessment
- The principles of the Council's Landscape Guidelines (Maidstone Landscape Character Assessment Supplement 2012)

The Landscape scheme sets out the hard and soft landscaping proposals, which include the re-use of historic stone and bricks in the hard landscape where it is not possible for these elements to be included in the barn building. The Biodiversity enhancement plan sets out the specific measures that will be undertaken to ensure that the scheme promotes biodiversity as a fundamental principle in the establishment of the garden and boundary areas. The LMMP includes prescriptions which will be applicable to the site for at least 5 years. The management solutions include both annual and cyclical or periodic operations, and suggested frequencies for inspections and monitoring. Establishment management prescriptions and recommended timeframes are also included for recently created landscape features and habitats.

2. Existing Site & Surroundings

The approved extent of the site has an approx. area of 750sqm (0.075ha) and is part of a much larger plot situated in a rural setting with a few properties in the immediate vicinity, along a narrow country lane. The neighbouring immediately neighbouring the site building is a large, Grade II listed three storey dwelling, elevated from the road level and highly visible from the lane.

Immediately to the south is Rose Court, a group of buildings with a central listed building and former stockyard, converted to 5 residential units. To the north-east is Court Lodge another large listed building on a large plot and to the south-east, opposite Rose Court, another large house, called Cobblers.



Vanity Lane with Rose Hill and Maytum Barn



Hill sloping up steeply to the North West



Court Lodge to the North and East of Vanity Lane



Entrance to Cobblers to the East



Commercial Orchards to the East beyond Cobblers entrance and tree canopy



Vanity Lane south bound, Rose Court and beech hedge, behind which sits Cobblers

The immediate local context of the site is that of several houses set on large plots of land and surrounded by fields bordered by hedges and trees and large expanses of commercial orchards. The landscape of Rosehill has a natural division in the topography, where the height of the land surrounding the main house varies from the area around the barn, which is at lower level, near the main road and separated by the access road leading to the house, thus reinforcing the position of the existing barn as quite separate from that of the listed house.



Maytum Barn seen from the north, Rose Hill behind



Barn South Elevation showing the change in level

There is also a natural gradient running east to west across the site dropping from the house towards the barn and at the rear of the barn rising quite steeply. The rest of the Rose Hill Farmhouse land rises very steeply towards the north west side of the barn, up to approx. 8m higher than the land surrounding the barn.

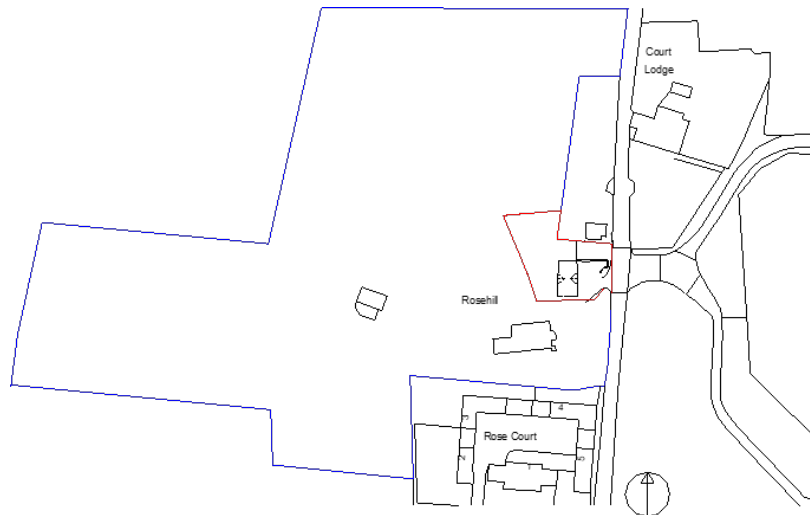


Area designated as Maytum barn garden with electricity pilons to be removed



Terraces and materials stockages areas to be converted into the adopted landscape plan

The area proposed for the barn garden is currently being used to stock building materials including historic materials already recovered elsewhere on the Rose Hill site which will be incorporated into the hard landscaping for Maytum barn garden. There is a natural terracing at the lower part of the slope with a flat area immediately to the north of the barn and proposed rear extensions that will form the main part of the garden, then the land rises to the north on a steep slope where a viewing area platform is proposed. The whole of the landscape scheme is developed to work in harmony with the natural flow of the land and existing trees.



OS map showing the Land at Rose Hill with the land to be allocated to the barn shown in red

Existing trees and hedges

Trees and hedges are of great importance in rural areas. All of the trees on the adjoining Rosehill plot are going to be preserved except two which are going to be felled as a result of the re-routing of the access road and the mulberry tree near the boundary with the barn land. As set out in the arboricultural report, these trees are of low significance. Other mature trees have already been planted elsewhere on the land at Rose Hill and further trees will be planted around Maytum Barn in the proposed landscaping scheme.

The trees in the vicinity of the proposed extensions are going to be protected during the construction and the protection methods, together with the Construction management plan for the demolition of the existing barn, which have already been submitted for the discharge of the relevant conditions.

3. The Proposed Landscape Plan

The Site lies at the intersection of the edges of the following character areas as described in the adopted Maidstone Landscape Character Assessment (amended July 2013) :

- Greensand Orchards and Mixed Farmlands – area 28 Coxheath Plateau which lies to the North-West of the site.
- Greensand Ridge – area 34 Linton Greensand Ridge which lies to the North-East of the site and
- Low Weald – area 41, Linton Park and Farmlands which lies to the South-East of the site

This Assessment describes the landscape character of the existing Site and wider area and sets out recommendations to enhance landscape features which characterise the locality. Key actions as set out in the Character Area description include:

- Consider the generic guidelines for the three areas: Greensand Orchards and Mixed Farmlands, Greensand Ridge and Low Weald
- Consider appropriate use of hard landscaping materials including any heritage considerations in the preservation of original historic materials from the site.
- Ensure the use of native hedging and suitable boundaries, taking consideration of the aspiration to enhance biodiversity in the scheme
- Consideration of the Preliminary Ecological Appraisal undertaken by KB Ecology
- Consideration of the Arboricultural Report and Impact Assessment undertaken by Moore Partners

Landscape and biodiversity

The landscape in the vicinity of Rosehill is a mixture of manmade and existing trees and hedges, this will be mainly remain unaltered. The proposed amenity for the barn plot is approx. 300sqm. In addition, the front of the property will be landscaped into a landscaped front garden with low stone walls to mirror the existing stone wall on the north part of the plot.

The existing mature trees and boundary vegetation will be retained apart from some non-native hedgerow loss to accommodate the proposed development. Some of the former nursery stock is to be transplanted and utilized either as part of the scheme or elsewhere in the Rose Hill gardens.

To encourage biodiversity, the garden will provide planting using native species and native hedging on the west and part of the south boundaries, while other boundaries to the north will have chestnut fencing to match existing, allowing clear areas for native wildlife to move seamlessly between the different areas. In addition, a large part of the bank and sloped areas will be allocated to a wild garden, where native species will be encouraged. The construction of the rear pods roofs will also ensure that features for swifts and house martins will be incorporated in the construction of the barns.

Hard landscaping

The proposed hard landscaping will include the repair of current rag stone walls at the front and the re-use of historic materials such as ragstone and brick to build the new front garden stone walls in a matching building technique. The rest of reclaimed stone and bricks, unsuitable for the new barn, will feature as patios, paths, steps and walkways around the building and within the surrounding gardens.



Existing boundary treatments to be replicated at the front and rear boundaries

The prescriptions in this LMMP relate to retained landscape features and vegetation and to proposed landscape features and typologies

Key points for the selection of Tree species include:

- Espalier fruit trees selected for their compact habit to be located against selected barn walls.
- Trees in open space will be a mix of native, native sub cultivar and species with seasonal and floral interest/shared similarities with native species and of a size suitable for more restricted residential gardens, planted as semi-mature, advanced nursery stock, extra heavy standard and selected standards to the rear garden
- Water associated native species trees around the peripheries of the pond, planted as multi-stem, semi-mature, advanced nursery stock and extra heavy standard.
- Native buffer planting at the boundaries offering screening and increasing habitat and biodiversity
- There will be no sycamore trees planted.

The Planting palette selection is based on key principles, including:

- Infrastructure and open space areas: hardy evergreen and deciduous species with wide seasonal interest and variety of flowering, fruiting and form
- Native species used where possible, or where space is restricted, suitable native sub cultivars and ornamental species.
- Native hedging comprising deciduous and evergreen species, suitable for clipped structures where required
- Aquatic planting: native species in permanently wet areas to promote biodiversity

A key feature of this proposed scheme is the wide variety of bio-diversity enhancements that will be incorporated, including:

- A diverse range of local native plants and fruit trees will attract a range of insects. In addition to the existing wild plum (damson) trees on the land a variety of native fruit trees including cherry, apple and pear will be planted with some trained along the walls, to provide early blossoms with nectar for pollinators emerging from hibernation
- A stumpery (old tree stumps that are piled up on a bank to create insect homes), various piles of rocks and wood will be established to provide good insect habitat and also encourage the growth of fungi, alongside the provision of swift boxes, a hedgehog home and other appropriate nesting areas to encourage wildlife.
- The provision of diverse habitats. The pond area will be wetlands, and the wooded area will have a shady area that can be planted with woodland flowers to attract woodland species. There will also be some dry areas – again attracting different types of insect as well as an area of wild grass meadow.
- Adoption of an edible landscaping scheme in the area planned for the vegetable patch – these have similar principles to those found in permaculture and forest gardens.
- The use of chestnut post fencing to the north of the site will allow for easy transition of all sizes of wildlife between the garden and surrounding areas.

4. Biodiversity Enhancement & Landscape Plan

The plan set out in the previous chapter references specific areas of planting, hard landscaping and includes numerous biodiversity improvement measures which are set out below (reference numbers below are also shown on the landscape plan in red circled numbers):

1 Hawthorn and hazel mix and single species beech hedges

	Coxheath Plateau	Greensand Ridge	Linton Park	Average
Mixed native hedging				
Beech	10%	0%	0%	3%
Field Maple	10%	20%	0%	10%
Hawthorn	80%	0%	15%	32%
Hazel	0%	70%	70%	47%
Sallow	0%	10%	10%	7%
Holly	0%	0%	5%	2%
	100%	100%	100%	100%

Extract from the Maidstone Landscape Character Assessment



Hawthorn and Beech Hedges

The three areas of Greensand Ridge, the Coxheath Plateau and Linton Parklands have slightly different native species mixes as set out above. Beech hedging is particularly visible in Vanity Lane with a number of the immediate local area hedges being in beech and it is proposed that the hedge along the new Rose Hill driveway should be single species beech to reflect the predominant hedging in the immediate area and also reflecting that this is a hedge that should be kept clipped as it borders a driveway.

Moving down from the driveway and then up the hill towards the north the main hedge on the western side of the plot on the boundary with Rose Hill's garden will be made up of mixed native hedgerow species interspersed with hedgerow oaks or wild service trees in 12m centres in line with the Linton Park character species recommendation. The predominant hedging species will be hawthorn and hazel with other species such as field maple, beech, sallow and holly used in smaller percentages as set out in the table above. This will enable a variety of local species in the boundary treatment which in turn will promote bio-diversity. All species will be of local provenance and the plants spaced at 45cm in a double staggered row to allow for the movement of smaller animals through the boundaries.

2 Chestnut fences



Existing Chestnut fence along the north boundary

The existing chestnut fence runs on the northern boundary to the immediate north of the barn and its boundary wall. These allow for wild life to pass between boundaries and will be retained both here and also a new chestnut post fence will be applied to the northern most boundary further up the hill in the rear garden.

3 Timber and crushed stone steps and platform



Due to the part of the proposed garden being on a steep slope, there will need for steps to access the higher level areas. The style of the garden will be that of a wild flower and grass, natural garden. Some of the stones that are not able to be used in the barn or creating stone walls in the garden, will be incorporated beside and around the slopes and steps to form natural planting areas. The use of crushed stone and sleepers to form the steps and platform will allow for good drainage throughout the site.

4 Reclaimed brick and stone paths



The paths around the side of the house and to the car parking area will be made using reclaimed bricks, stones and crushed stone to create natural paths and ensure good drainage in surrounding areas. To the south and west of the new extensions the paths will also be surrounded with crushed stone and planted with herbs and espalier fruit trees will be grown to the side of the house offering a range of species that will attract pollinators. The crushed stone areas between the hedges and the paths will also incorporate a number of features such as bug hotels or piles of sticks and wood to encourage insects in a natural habitat.

5 Internal patio with stone and brick paving and herb garden



The internal patio will also be made up of reclaimed brick, stones and crushed stone and will feature a diverse range of species, mainly herbs, in and around the patio area again offering good drainage and attracting a range of insects and pollinators.

6 Open rainwater pond



There will be a small rainwater pond in the lower part of the garden to the north west. This will be surrounded by some of the rag stone and various different water species will be planted in the pond to encourage wild life. The surrounding areas will also be planted with some trees and bushes as well as piles of stones to encourage wild life habitats. This is set out in more detail in section 17 below.

7 Grass grid car parking



The area to the north-east of the barn will become an off street parking area with adequate space for two cars. The nature of the surrounding area is that of open fields and chestnut fences and therefore this area will ,currently a grass area surrounded by a chestnut fence, will be levelled strengthened with grass grid parking which will then be seeded and continue to be a green area befitting to its environment.

8 Native tree copse and wild flower meadow

Recommended Native Trees	Coxheath Plateau	Greensand Ridge	Linton Park	Included in 2 of 3
Alder	x	x	x	x
Alder Buckthorn		x		
Ash	x	x	x	x
Aspen	x	x		x
Blackthorn	x			
Beech	x			
Downy Birch	x	x		x
Field Maple	x	x		x
Hawthorn			x	
Hazel	x	x	x	x
Holly			x	
Hornbeam	x	x	x	x
Pedunculate Oak	x		x	x
Sallow	x	x		x
Sessile Oak		x		
Silver Birch		x		
Spindle			x	
Yew	x			



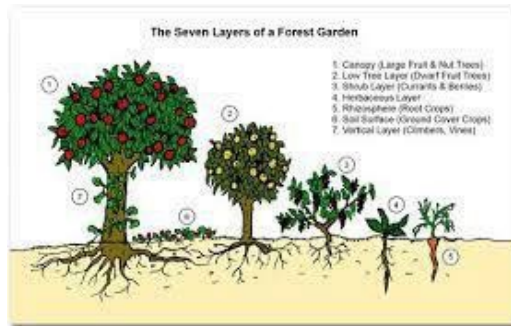
The Maidstone Landscape character areas set out the recommended native trees for Coxheath plateau, Greensand Ridge and Linton Park and is summarised above. This landscape plan will use only native trees recommended in at least 2 of the 3 areas in the immediate vicinity of Maytum Barn to supplement any trees that are already planted. There is a group of wild plum and an apple tree further up the bank to the North of the site which will be retained. Further planting of trees will already be undertaken within the hedges on both the east (towards the northern most part of the garden) and the west as described in point 1 above together with the planting of a birch and ash copse in the north west area of the garden. This will comprise 3-5 trees interspersed with wild flower meadow grasses enhanced with native wild flower bulbs including bluebells which abound in this region.

9 Existing Euonymus hedge



Part of the existing euonymus hedge was removed for site access and to remove the electricity poles. The remaining part of this non-native pre-existing hedge will be retained and in the area that is not currently hedged to the north-east at the top end of the site will be planted with a hedge with mixed native hedging interspersed with trees as described in point 1 above. The existing trees shown in the picture above will be retained and supplemented to the north east as set out in point 20 below and to the north-west as described in point 8 above.

10 Vegetable garden



The adoption of an edible landscaping scheme in the area planned for the vegetable patch to the immediate north of the rebuilt barn will see the introduction of similar principles to those found in permaculture and forest gardens. As there are apple trees already planted on the other side of the chestnut fence the planting of shrub fruits such as currants next to the hedge followed by the various different edible species forming six of the seven layers recommended for forest gardens (the larger tree canopy will not be possible due to the space available) will promote bio-diversity in this space. The fruit and vegetables grown will include perennials such as raspberries, a variety of currants, rhubarb and Kentish asparagus in addition to regular annual garden vegetable crops such as beans, peas, onions and beetroot for example. The establishment of a composting scheme, the recovery of rainwater to use in watering the plants, and the planting of companion plants such as French marigolds, chives, summer savoury and tansy as an effective method of ensuring natural deterrents will enhance the bio-diversity of this edible landscape scheme.

11 Reclaimed brick and stone paths

See section 4 above.

12 Bird boxes



The provision of a minimum of 5 different bird boxes in different locations in the garden will enable different species to readily find a home in the landscape. This includes boxes for swifts and house martins to be included under the eaves of the rooves, and more traditional bird boxes for blackbirds, blue tits, robins and sparrows to be placed on newly planted and existing trees.

13 Hedgehog nesting box



The hedgehog nesting box will be set in the North Eastern corner of the garden above the stumpery described in point 18 below. This is an area quite high up the slope and where people are less likely to disturb the nesting hedgehogs. The area is relatively close to the edible vegetable patch where a range of insects will be found and set in an area with longer wild grass which is the preferred habitat of the hedgehog as this also attracts a variety of insects upon which the hedgehog will feed.

14 Grass and wildflower gardens



The main area of the garden to the north of the kitchen extension will be a flat area with a stone and brick patio area similar to the internal courtyard patio described in point 4 above and grass which will be predominantly cut with a boundary area surrounding the pond being left to grow more wildly sprinkled through with native wild flowers. Several wild grass areas will also be featured on the steeply inclined banks above the viewing platform to the north and also the front garden will host a wild flower area between the stone and brick paths.

15 Espalier fruit trees



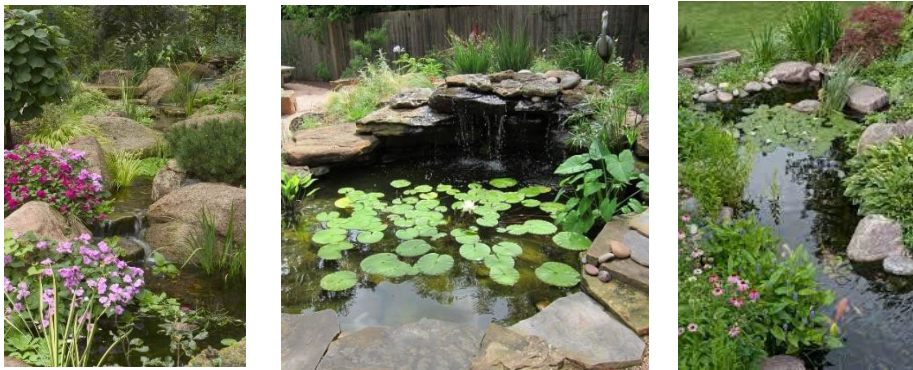
The south facing walls which only have small windows to bathrooms, create an ideal space to grow fruit trees to introduce significantly enhanced bio-diversity when coupled with a variety of insect habitat enhancing schemes and bug hotels as set out in section 16 below. A further wall with no windows will be the rebuilt barn wall to the north which borders the vegetable area and the introduction of espalier fruit trees will again enhance the biodiversity of this area. The plan sees the introduction of a diverse range of espalier fruit trees e.g. cherry, plum, apple and pear to give early to late blossoms upon which pollinators can feast.

16 Bug hotel & insect habitats



There will be a number of different areas included to attract a variety of insects and pollinators in particular. Close to the espalier fruit trees described in point 15 above, and at the side of the paths to the south of the pod extensions will see the provision of an insect hotel and also several different piles of wood to create natural insect habitats.

17 Wildlife habitat surrounding the pond



An outdoor pond is a haven for wildlife and a site where both organic and inorganic elements interact to create an ecological balance. This opens up a variety of spaces for shelter, especially for animals that have ventured out of the wild. For this reason, the selection of materials to place along a pond's edge goes beyond the aesthetic appeal. In this plan there will be piles of old rag stone recovered from the barn surrounding the pond. Planting around the pond will include trailing plants and marginal plants such as ferns and grasses such that it blends easily into the landscape. There will also be a wild grass area between the pond and the stone wall leading up to the platform viewing area.

18 Stumpery



The use of old tree stumps to create a significant insect habitat will be incorporated into the area to the north-east above the patio viewing platform and below the hedgehog nesting box. This will in particular encourage insects and reptiles such as slow worms. There are already a number of old tree stumps at Rose Hill and these will be transported to this location. Rose Hill gardens already includes a stumpery elsewhere in the garden and the pictures shown above are from the existing Rose Hill stumpery which was created only a few years ago.

19 Stone walls



The platform area will be faced with a dry stone wall made by using reclaimed rag stone from the barn and other areas in the gardens of Rose Hill. The front of the Maytum barn garden will also have a second wall built to match the existing old wall at the front of the barn area which is shown in the pictures above. The second matching wall will be made of reclaimed stone from the barn. As the barn is currently built of a double skin stone wall and only a single facing will be required for the new barn building, there should be adequate stone to enable all of the walls to be built from the original stone from the barn with any stone that is blown being used in the pond surround area.

20 Tree line to the North



The tree line to the North is on the slope going up to a field above and is shown above in more detail in the first picture. It will remain part of the Rose Hill garden and consists of numerous wild fruit trees including several damsons, wild cherries and an apple tree. There are also two cultivated and recently planted trees which will be retained. These will be supplemented to the east with a native species hedge interspersed with trees as described in section 1 and to the west by the planting of the ash and birch copse as described in section 8. There are no overlooking neighbours from the North of the land as the boundary is with a field with fruit trees and the Maytum barn garden is mainly hidden by the natural hillside landscape as shown in the photos from Vanity Lane in the second and third pictures. It should be noted that the proposed Maytum barn garden boundary at the north is part way up the hill close to the existing electricity pole in the second picture above. It is proposed that the native hedge will be planted between the Euonymus hedge and just past the chestnut post fence that will be incorporated at the edge of the Maytum barn garden. Therefore, it is the hedge and interspersed trees that will be visible from the road and the neighbours at Court Lodge which is the only house that may potentially overlook this part of the garden.

5. Management Responsibilities and Liabilities

There are no areas requiring adoption by any authority and therefore the full management responsibilities and liabilities will be retained by the private owner. The principal statutory obligations, duties, responsibilities and liabilities relevant to the management of the landscape and green infrastructure are set out below. These should be reviewed at each stage of the review and updating of this LMMP.

- The Environmental Protection Act 1990 imposes duties under section 89(1) and (2) on landowners and occupiers to keep specified land clear of litter and refuse, and on local authorities and the Secretary of State to keep clean public highways for which they are responsible. Duties and responsibilities are described in the Act and in the supporting DEFRA Code of Practice on Litter and Refuse (April 2006).
- Compliance with the Wildlife and Countryside Act (1981) and subsequent legislation is required in relation to protected species and the control of invasive non-native species. Recommendations for the protection of habitats and faunal species are set out in the EMS. Regular monitoring should be undertaken to identify the presence of non-native invasive species listed under the 1959 Weeds Act and Wildlife and Countryside Act 1981, in order to implement measures to eradicate before species can spread to other areas of the site.
- All nesting birds are protected under the Wildlife and Countryside Act 1981. Management operations with the potential to cause harm to nesting birds should not be carried out during the nesting season (mid-February to end August).
- All mature trees should be subject to a full tree condition survey not less frequently than every five years. In high risk locations it may be appropriate to reduce the interval between inspections to e.g. 3 years. The frequency of inspection, which may be determined by the Site Manager in consultation with a suitably qualified arboriculturalist, may be varied (increased or decreased) depending on identified levels of risk associated with the trees and the site context. Annual safety inspections should also be undertaken and management implemented in accordance with the recommendations of the condition survey and safety inspections. Risk based assessments will also be undertaken as required in accordance with the tree condition survey and in response to reports of damage or risk of failure.
- Where trees are subject to tree preservation orders, Conservation Areas or tree planning conditions, suitable permission will be sought from the Local Authority, prior to works.
- Ash dieback is now widespread throughout south east England. Frequencies for inspections of ash trees on or with the potential to affect the site, and timeframes for removal, will be advised by the arboriculturalist.
- Compliance with the Environment Act (1990) and other legislation governing the use of chemicals and pollution control.
- Compliance with the emerging Environment Bill (2020) which places obligations and responsibilities on land owners and site operators with regard to carbon offsetting, waste and resource efficiency, air quality, water management and biodiversity gain.
- Biosecurity: trees, shrubs and other plants in the UK are under threat from an increasing number of pests and diseases. Where

replacement plants are required, procurement should be in accordance with relevant current legislation, regulations and biosecurity recommendations and guidelines regarding the supply and procurement of plant material. Published guidance relevant to plant supply and in general to the arboriculture, horticulture and forestry sectors on the risks associated with, and management of, pests and pathogens is available from a range of sources including the Landscape Institute and the Arboricultural Association. All plant material should be regularly monitored for signs of pests or diseases, which should be reported immediately to the Site Manager.

6. Management Aims, Objectives & Prescriptions

Management Aims

The overall landscape concept and design objectives are set out in section 3 above. Management Aims relating to biodiversity also include the creation of new habitat and faunal opportunities; Wider general management aims may be summarised as:

- maintain and enhance landscape quality;
- ensure sustainability and effective resource management;
- ensure all maintenance operations comply with current UK and European legislation in relation to protected species and habitats, including seasonal requirements relating to nesting birds;
- compliance with all health and safety and security commitments and duties under current legislation;
- ensure all maintenance operations comply with current UK and European legislation in relation to management, use and application of pesticides and herbicides;
- where feasible, restrict use of chemical controls (herbicides, pesticides, fertilisers) unless other management methods are inappropriate or ineffective (apply in accordance with all relevant legislation, manufacturer's instructions and recommended good practice guidance);
- all landscape maintenance operations to be in accordance with sound ecological principles;
- continually monitor and review landscape provision and landscape management.

Management Objectives and Management Prescriptions

This section is set out by Landscape Typologies, It also sets out objectives and prescriptions for the management of hard landscape elements, furniture and general cleansing and litter duties.

Each section is set out as follows:

- Brief description of the landscape typology or feature
- Management Objective

- **Management Prescription**

Where new landscape typologies or features are created, recommended timeframes for establishment maintenance post-construction are given in each prescription, although these should be subject to review by the Owner. For each new soft landscape element or habitat an establishment maintenance prescription is included.

All maintenance and management operations shall be carried out generally in accordance with current legislation and best practice including British Standards, Codes of Practice and recommendations and advice notes of relevant professional bodies, such as the Landscape Institute, Natural England, BALI and the Arboricultural Association.

It is a stated aim of this LMMP to minimise the use of chemicals in maintenance operations. Where feasible the use of chemical controls (herbicides, pesticides, fertilisers) will not be used, unless other management methods are inappropriate or ineffective (apply in accordance with all relevant legislation, manufacturer's instructions and recommended good practice guidance).

A plan for the treatment of arisings from maintenance operations will be devised. Where feasible (as determined by Site Owner) any timber arising from safety works may be piled in appropriate locations to rot naturally, in accordance with the recommendations of the EMS, in order to create habitat for a range of wildlife. Where arisings cannot be retained /recycled on Site, it is anticipated that these will be taken to the nearest local authority composting facility.

6.1 Trees

Description

Retained trees

The Site boundaries feature a number of existing mature trees. It is anticipated that the majority of existing boundary trees will be retained wherever possible and managed appropriately to maintain them in a safe and attractive condition and to optimise their amenity and biodiversity value and contribution to landscape structure.

New trees

The new trees will be planted mainly in the birch and ash copse at in the north west area of the garden as well as espalier fruit trees against the walls on the north and south sides.

The prescriptions below also include an establishment maintenance prescription. It is recommended that this is followed for the first five years post-planting, but this should be subject to review by the Site Manager and Arboricultural Advisor.

Management Objectives

- To create and maintain a high quality environment which is attractive and enhances the overall asset value of the area;
- To create and maintain an attractive amenity for quiet recreation and for the benefit of a range of wildlife;
- To create and maintain healthy tree cover;
- To enhance biodiversity.

Management Prescriptions

Retained and installed trees

- Installed trees (up to 5 years old): irrigate as necessary to maintain healthy growth (from April/May water every ten days if there have been ten consecutive days of dry weather); continue formative pruning as required to achieve desired shape and encourage healthy growth; adjust tree guards, stakes and ties to accommodate growth; maintain guying systems in accordance with manufacturer's recommendations; refirm trees loosened by wind or frost; top up mulch to 50mm depth as required; weed control (hand weed or spot application of appropriate herbicide) to maintain a 1m weed free diameter around the tree base. Any failures within five years to be replaced with equivalent size nursery stock of the same species.
- All established trees: 3-5 year full tree condition survey and annual safety checks and canopy management as required. Carry out any routine works in the winter months (Jan/Feb) to enable birds to feed on winter berries.

New trees

Establishment Maintenance (Years 1 to 5)

- No plastic tree guards to be used.
- Maintenance of any guying systems or staking as required; check and repair or replace tree guards, stakes and ties as required to ensure healthy growth; refirm trees loosened by wind or frost (once trees are established, remove tree guards or stakes); check grilles (trees in hard surfaces);
- irrigation as required to ensure successful establishment; from April/May water every ten days if there have been ten consecutive days of dry weather;
- Top up mulch to 50mm depth as required;
- Weed control should be undertaken by hand weeding to maintain a 50cm weed free diameter around the tree base.
- Formative pruning as required, appropriate to species and form (eg multistems);
- Replacement of losses to ensure 100% establishment by Year 5.

Annual post establishment maintenance

- Annual inspections and further formative pruning if required (observing regulations with reference to works during the bird nesting season);
- Top up bark mulch to 50mm;
- For all translocated trees, and as newly planted trees mature carry out annual safety checks and canopy management as required in order to maintain trees in a safe condition. Carry out any routine works in the winter months (Jan/Feb) to enable birds to feed on winter berries;
- Remove basal sucker/epicormic growth;

6.2 Native mix and Beech Hedge

Description

A native shrub and small tree mix will be used in the hedging on the West and North East boundaries comprising species such as hawthorn, field maple and hazel as described above. A single species beech hedge will be planted alongside the new driveway to Rose Hill. Ongoing management of these areas should seek to maintain their visual and physical screening properties as well as contribute to a strong ecological network and a graduated edge to existing tree cover.

Management Objectives

- To create a strong landscape buffer providing a linked ecological network;
- To create dense low level structure to provide connectivity throughout the understorey layer and between the canopy and understorey to provide good bird nesting habitat and shelter for wildlife;
- To maintain species diversity of trees and shrubs ensuring constant supply of food for wildlife;
- To provide a range of microhabitats providing cover and foraging for a range of wildlife.

Management Prescription

Establishment maintenance (Years 1-5)

- Check tree and shrub guards (not to be made of plastic) at each maintenance visit and replace as necessary; remove guards once plants established;
- Maintain in a weed free condition and top up mulch as required;
- Irrigation/watering as required to ensure establishment;
- Replacement of losses to ensure 100% establishment by Year 5.

Post Establishment Maintenance

- Monitor performance of tree and shrub guards and remove when no longer required;
- Selective coppicing to create a scalloped edge to the native buffer planting plots in order to enhance the ecological value of the plot edges (to be advised by Site Manager in consultation with suitably qualified ecologist, where necessary).

Some selective thinning/coppicing mix may be required within ten years to maintain vigour and structural diversity.

6.3 Grass and wildflower meadow land

Description

Some of the areas including the garden to the front of the barn, may be left to grow long until early summer, with cutting delayed until June/July. Areas of amenity grass to be regularly mown will also be established between the northern back garden and the steps up to the viewing platform, pond and long grass areas with some areas featuring bulb drifts for seasonal colour.

Wildflower seed will be used to create attractive meadow areas managed to optimise visual interest and entice wildlife in the two wild flower meadow areas on the hill above the platform. Pond edges will feature a pond edge mix with annual ryegrass suitable for wet pond margins, with a mix of 80% grass species such as common bent, slender creeping red fescue and crested dogstail and 20% wildflower mix including yellow iris (*Iris pseudacorus*), common knapweed and winter cress (*Barbarea vulgaris*).

Management Objectives

- To provide high quality open space offering access to nature and for amenity;
- To maintain attractive and species rich grasslands providing habitat for a range of wildlife;
- Create maximum habitat value by managing pond mix areas for variation in vegetation structures with minimal disturbance to wetland wildlife population.

Amenity turf/seed (mown)

Management Prescription

- In first year irrigate regularly to ensure turf /newly grown grass does not dry out and establishes successfully;
- Maintain at heights of between 25 and 50 mm (cut roughly fortnightly throughout the growing season (mid-March to mid-October); re-form edges abutting hard surfaces; remove arisings;
- Monitor condition and cover to maintain a predominantly grass sward with 90% cover;
- Weed control as necessary to control injurious weeds (hand pulling or spot treatment only, using an appropriate herbicide; no

indiscriminate herbicide spraying);

- Aerate areas of poor cover and overseed bare patches, as required;
- Do not cut bulb areas until (approximately 6 weeks) after bulbs have flowered and died back (early/mid June).

General purpose meadow mix

Management Prescription

Establishment maintenance

- Perennial meadow mixes may be slow to germinate and may not flower in the first season. Control annual weeds by topping or mowing. Mow regularly to a height of 40-60mm in the first growing season, remove arisings;
- Dig out or spot treat residual perennial weeds such as dock.

Post-establishment maintenance

- In subsequent years, the mix can be managed as meadow based around a summer hay cut combined with mowing through to autumn. The meadow is not mown until late summer to allow the different species to flower. Arisings should be left for up to a week to allow seeds to drop, then removed. Further mowing through autumn, as required, to a height of 100mm;

Pond edge mix

Management Prescription

Establishment maintenance (Year 1)

- Cut back annual weed growth to encourage the development of perennial ground cover

Annual maintenance

Post-establishment maintenance regimes will be monitored and where appropriate modified in consultation with a suitably qualified ecologist. It is anticipated that the key tasks will include:

- Remove short sections/wedges of vegetation on a 2/3 year rotation;

- Selective thinning of individual species where these have formed dense stands;
- Cutting or thinning of vegetation Sept-Nov to minimise disturbance to wildlife.

6.4 Ponds and wetlands

Description

The ponds will be edged with rag stone recovered from the barn and fringed with narrow bands of marginal planting and pre-seeded coir rolls. Aquatic and marginal planting will provide habitat and foraging opportunities for a wide range of invertebrates, birds, small mammals, reptiles and amphibians as well as create an attractive visual amenity, using species such as water lily (*Nymphaea alba*), yellow iris (*Iris pseudacorus*) and water crowfoot (*Ranunculus aquatilis*). Management and maintenance regimes should be reviewed annually (where necessary in consultation with a suitably qualified ecologist).

Management Objectives

- To provide an open water and wetland habitat providing breeding habitat for amphibians and wetland birds and foraging habitat for a range of species including bats, birds, reptiles and amphibians;
- To provide an attractive amenity which forms part of the garden:

Management Prescription

- Inspect water channels and bodies quarterly and after major rainfall events for evidence of damage and to remove litter and debris;
- Weeding to remove invasive species from marginals– annual inspections to review individual species cover – species such as yellow iris can spread and suppress other species. Hand weed to control. Aquatic and bank vegetation: hand cut submerged and emergent aquatic plants, remove bankside vegetation/coppice as required
- All arisings to be left along the pond edge for a few days to allow wildlife to return to the water. Thereafter remove;
- Monitoring of evidence of algal bloom and removal by raking during summer months;
- Regular monitoring of water levels and water quality monitoring;
- Silt accumulation may increase the predominance of invasive species. Monitor silt accumulation and establish appropriate silt removal frequencies (no more than 33% in any one year). It is not anticipated that this will be necessary for 20 years.
- Remove sediment from forebay as required.

6.5 Hard landscape

Description

Hard surfaces include reclaimed brick and rag stone, crushed stone and pea gravel.

Management Objective

- To maintain a high quality, safe and accessible pedestrian and vehicular network for all users.

Management Prescription

- Monitoring of condition of all hard surfaces and repairs as required to maintain a safe and accessible network; repairs to resin bonded and Fibredec surfaces to be in accordance with original specification and/or supplier's recommendations;
- Monitoring and removal of weed growth;
- Leaf clearance/snow & ice clearance as advised by Site Manager.

6.6 Artificial wildlife habitats

Description

It is anticipated that opportunities for wildlife will be enhanced through provision of artificial habitat such as bird boxes and bug hotels

Management Objective

- To enhance suitable habitat provision.

Management Prescription

- Minor repairs or replacement as required (only when not in use)

This Landscape Management and Maintenance Plan will be reviewed as detailed landscape proposals are developed through to construction.

Appendix A: Landscape Plan 1

Appendix B: Landscape Plan 2 – trees and screening