



# STEPHEN CUTMORE BSc(Hons), MICFor, MArborA Arboricultural & Ecological Services



SURVEYS, INSPECTIONS, REPORTS

**PLOTS 1-14  
SITE OFF OAK DRIVE  
COLWYN BAY  
CONWY  
LL29 7YP**

## **PROPOSED BUILDING DEVELOPMENT**

### **WOODLAND MANAGEMENT PLAN (amended 22 August 2023)**

**Report by:**

**Stephen Cutmore** BSc (Hons), MICFor, MArborA  
Chartered Arboriculturist

<b>Client</b>	<b>Northfield Property Developments Ltd</b>
<b>Planning Authority</b>	<b>Conwy County Borough Council</b>
<b>Grid Reference</b>	<b>SJ842790</b>
<b>Dates of Surveys</b>	<b>4 September 2019, 19 January and 7 October 2022, 26 May 2023</b>
<b>Reference</b>	<b>082023/WMP/JN</b>



PRO3755



Veteran tree specialist  
– Consulting level

## TABLE OF CONTENTS

<b>1.0 SUMMARY</b>	<b>3</b>
<b>2.0 INTRODUCTION</b>	<b>4</b>
2.1 Brief	
2.2 Purpose of this plan	
2.3 Scope of this plan	
2.4 Relevant background information	5
2.5 Tree identification and location	
2.6 Qualifications	
2.7 Copyright	
<b>3.0 DATA COLLECTION</b>	<b>5</b>
3.1 Site visit	
3.2 Site description	
<b>4.0 TREE PLANTING</b>	<b>6</b>
4.1 Increasing species diversity	
4.2 Improving woodland structure	
4.3 Tree planting specifications	7
4.4 Tree support	10
4.5 Pest protection	11
4.6 Mulching	
4.7 Aftercare	
<b>5.0 IMPROVING BIRD NESTING OPPORTUNITIES</b>	<b>13</b>
5.1 Hedge planting	
5.2 Bird nesting boxes	
<b>6.0 ECOLOGICAL IMPROVEMENTS</b>	<b>13</b>
6.1 Bat boxes	
6.2 Other ecological benefits	
<b>7.0 RETENTION OF DEADWOOD HABITAT</b>	<b>13</b>
<b>8.0 MECHANISM FOR IMPLEMENTING PLAN</b>	<b>14</b>
8.1 Legal framework	
8.2 Contractor	
8.3 Involving new property owners/tenants	
8.4 Appraisal of woodland and preparation of a new Woodland Management Plan	
<b>APPENDICES</b>	
APPENDIX 1 – Site plan	16
APPENDIX 2 – Woodland management plan	17
APPENDIX 3 – Bird nesting boxes	19
APPENDIX 4 – Bat boxes	20
APPENDIX 5 – Consultant profile	21

Client: NPD Ltd  
Ref: 082023/WMP/JR

Woodland Management Plan  
Oak Drive, Colwyn Bay

22 August 2023  
page 2 of 21



## 1.0 SUMMARY

Planning Permission is being sought to erect 14 private dwellings (Phase 1 plots 1-3, Phase 2 plots 4-14), with associated parking spaces, access road and landscaping, at a site off Oak Drive, Colwyn Bay, Conwy, LL29 7YP. This document details a 10 year Woodland Management Plan, to ensure that the woodland cover is maintained on the site.

The woodland area is within the Pwllcrochan Conservation Area. A six-week Notice of Intent application **must** be submitted to the Local Planning Authority before any pruning/felling works are carried out, unless the work is classed as exempt (dead/dying/posing an imminent danger), in which case a 5 day notice will be required.

The woodland is comprised of principally Ash, Sycamore and White Willow, with some Beech, Common Oak, Holly, Lime, Sessile Oak, Silver Birch, Wild Cherry and Wych Elm. Through this 10 year Woodland Management Plan, the diversity of tree species will be increased through planting native species (Alder, Black Mulberry, Blackthorn, Crab Apple, Field Maple, Hawthorn, Hazel, Rowan, Scots Pine, Sessile Oak, Spindleberry and Wild Service tree). Elsewhere on the development site, Alder, Amelanchier, Birch, Cherry, Judas Tree, Katsura, Large-leaved Lime, London Plane, Ornamental Pear, Paperbark Maple, Rowan, Sorbus, Sweet Gum and Tulip Tree, will be planted to provide a mixture of fruit and autumn colours. Beech, Blackthorn, Hawthorn, Holly and Privet hedges will be planted. Upright/fastigiata trees (Dawyck Beech, Dawyck Purple Beech, Fastigiata Common Oak, Upright Hornbeam 'Frans Fontaine', Upright Cherry and Maidenhair Tree) will be planted on the bank to the rear (North) of the dwellings, to soften the street scene when viewed from Oak Drive.

New tree and hedge planting will be planted in the woodland area and on the wider development site as mitigation and biodiversity enhancement to help create an uneven age structure and increase shrub and understorey layers. As well as improving the amenity value of the woodland, diversifying the woodland structure will enhance the wildlife habitat, promote sustainability and increase the resilience of the woodland against possible pests and diseases. Provision of bird nesting opportunities will be made through planting native species hedgerows and by installing bird nesting boxes around the site. Provision of bat roosting opportunities will be made through installing bat boxes around the site. Deadwood will be retained, (where safety considerations allow), to provide habitat for wildlife. Regular tree safety surveys will be carried out and where deadwood poses a safety risk, appropriate pruning will be carried out, or in exceptional cases tree felling. Any resulting timber arisings will be stacked on the ground in habitat piles.

The developer will need to have a suitable legal framework in place which specifically addresses the ownership and management responsibilities of the woodland area. A suggestion is that each owner/tenant signs a management agreement/covenant, with an annual maintenance fee levied on each owner/tenant. It is proposed that a suitably qualified and insured contractor be instructed to carry out the various tasks, so that the work can be carried out to comply with Industry Best Practice and to ensure a consistency in standards of work.

In Year 10 of this management plan, the woodland should be re-assessed and the previous works appraised. A new management plan should be developed, to ensure the continued retention of woodland cover on the site.



## 2.0 INTRODUCTION

### 2.1 Brief

Stephen Cutmore BSc (Hons), MICFor, MArborA, was instructed by Jamie Northcott, Northfield Property Development Ltd, to prepare a Woodland Management Plan for the site at Oak Drive, Colwyn Bay, LL29 7YP.

The definition of the assignment was to:

1. Prepare a 10 year Woodland Management Plan with SMART targets which are specific, measurable, achievable, realistic and within a specified timeframe.
2. Provide specific details on tree planting.
3. Provide specific details on provision of bird nesting opportunities.
4. Provide specific details on other ecological improvement measures.
5. Provide specific details on retention of deadwood habitat.
6. Provide a mechanism to ensure that the Management Plan is implemented and able to be audited.

### 2.2 Purpose of this Woodland Management Plan

The purpose of this Woodland Management Plan is to describe the specific tasks required, in a timeframe and to provide a mechanism by which the plan is implemented and a means of auditing that the work is carried out.

### 2.3 Scope of Woodland Management Plan

#### Date of consultation.

The field examinations were made on 3 December 2020, 19 January, 7 October 2022 and 26 May 2023 and observations and conclusions are as of those dates.

#### Limit of scope.

This is solely a Woodland Management Plan and cannot comment on topics outside this discipline. If additional advice is required, it is strongly recommended that other professionals are consulted e.g. Structural Engineers/Surveyors or Solicitors.



## 2.0 INTRODUCTION (continued)

### 2.4 Relevant background information

Planning Permission is being sought to erect 14 private dwellings (Phase 1 plots 1-3, Phase 2 plots 4-14), with associated parking spaces, access road and landscaping, at a site off Oak Drive, Colwyn Bay, Conwy, LL29 7YP. This document details a 10 year Woodland Management Plan, to ensure that the woodland cover is maintained on the site. The site is within the Pwllcrochan Conservation Area. A 6 week Notice of Intent application **must** be submitted to the Local Planning Authority before any pruning/felling works are carried out, unless the work is classed as exempt (dead/dying/posing an imminent danger), in which case a 5 day notice will be required.

### 2.5 Tree identification and location

The trees are located within the boundaries of the former Rydal School tennis courts off Oak Drive, Colwyn Bay, Conwy, LL29 7YP. A BS5837 (2012) Tree Appraisal report was prepared by Stephen Cutmore, for submission with the planning application, in which the subject trees were identified by sequential numbering. For consistency, the tree & group numbers from the original report have been used in this Management Plan.

### 2.6 Qualifications

Stephen Cutmore is a Chartered Arboriculturist (Institute of Chartered Foresters), with over thirty five years' experience in the arboricultural and forestry industry as a contractor and over twenty five years' experience as an arboricultural consultant. Full details of my qualifications and experience entitling me to give expert opinion evidence are in Appendix 5.

### 2.7 Copyright

Copyright © 2023 by Stephen Cutmore. All rights reserved. This Woodland Management Plan or any parts thereof may not be reproduced without the prior written permission of the author.

## 3.0 DATA COLLECTION

### 3.1 Site visit

The initial site visit was made on the morning of 4 September 2019 and further site visits were made on 3 December 2020, 19 January, 7 October 2022 and 26 May 2023. The weather was dry and overcast. There were no limiting factors to the inspection.

### 3.2 Site Description

A small woodland area is located at the East of the site, with hard surface tennis courts on the West section. The site slopes gently down from south to north. Existing residential dwellings are adjacent to the boundaries of the site. The mixed species broadleaved woodland is comprised of predominantly semi-mature self-set Ash, Sycamore and White Willow trees in the centre, with larger mature trees located around the boundaries of the small woodland area.



## 4.0 TREE PLANTING

### 4.1 Increasing species diversity

The woodland is comprised of principally Ash, Sycamore and White Willow, with some Beech, Common Oak, Holly, Lime, Sessile Oak, Silver Birch, Wild Cherry and Wych Elm. With the threat of global warming, Ash Dieback Disease and the risk of introduced exotic pests/diseases attacking the trees, it would be beneficial to increase the range of tree species in the woodland. This would help increase the biodiversity and improve resilience against tree pests. This Plan will introduce Alder (*Alnus glutinosa*), Blackthorn (*Prunus spinosa*), Field Maple (*Acer campestre*), Hawthorn (*Crataegus monogyna*), Hazel (*Corylus avellana*), Rowan (*Sorbus aucuparia*), Scots Pine (*Pinus sylvestris*), Sessile Oak (*Quercus petraea*), Spindleberry (*Euonymus europaeus*), Wild Cherry (*Prunus avium*) and Wild Service tree (*Sorbus torminalis*) which are native species.

Elsewhere on the West section of the development site, Alder (*Alnus glutinosa*), Amelanchier (*Amelanchier lamarkii*), Birch (*Betula pendula* and *Betula utilis* 'Jacquemontii'), Black Mulberry (*Morus nigra*), Cherry (*Prunus amanogawa* and *Prunus x subhirtella* 'Autumnalis'), Crab Apple (*Malus sylvestris*), Judas Tree (*Cercis siliquastrum*), Katsura (*Cercidiphyllum japonicum*), Large-leaved Lime (*Tilia platyphyllos* 'rubra'), London Plane (*Platanus x acerifolia*), Maidenhair Tree (*Ginkgo biloba*), Ornamental Pear (*Pyrus calleryana* 'Chanticleer'), Paperbark Maple (*Acer griseum*), Rowan (*Sorbus aucuparia*), Scarlet Oak (*Quercus coccinea*), Sorbus ('Cashmiriana', 'Hupehensis', 'Joseph Rock'), Sweet Chestnut (*Castanea sativa*), Sweet Gum (*Liquidambar styraciflua*) and Tulip Tree (*Liriodendron tulipifera*), will be planted to provide a mixture of fruit, interesting bark/foliage and autumn colours. Beech (*Fagus sylvatica*), Blackthorn (*Prunus spinosa*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*) and Privet (*Ligustrum vulgare*) hedges will be planted. Upright/fastigate trees [Dawyck Beech (*Fagus sylvatica* 'Dawyck'), Dawyck Purple Beech (*Fagus sylvatica* 'Dawyck Purple'), Fastigate Common Oak (*Quercus robur* 'Fastigiata'), Upright Hornbeam (*Carpinus betulus* 'Frans Fontaine'), Upright Cherry (*Prunus amanogawa*) and Maidenhair Tree (*Ginkgo biloba*)] will be planted on the bank to the rear (North) of the dwellings, to soften the street scene when viewed from Oak Drive.

The majority of new planting will be carried out in Year 1 (1<sup>st</sup> occupancy after completion), with further trees to be planted in Year 6.

### 4.2 Improving woodland structure

With the prevalence of Chalara Ash Dieback Disease (all the Ash trees have symptoms), it is likely that the Ash will succumb to the disease and infected trees will need to be removed. It is anticipated that natural regeneration (most likely Ash/Sycamore/Oak) will develop in the areas of woodland to be retained. This natural regeneration will help contribute to the longevity of the woodland. The regeneration saplings should be lightly 'thinned' in Year 5, selecting the best formed trees to be retained. To supplement the natural regeneration, planting new young trees and a few standard sized trees will further help to develop an uneven age structure and a more diverse species mix. The woodland structure will also be improved by increasing the shrub and understorey layers. As well as improving the amenity value of the woodland, diversifying the woodland structure will enhance the wildlife habitat, promote sustainability and increase the resilience of the woodland against possible pests and diseases.



### 4.3 Tree planting specifications

For trees to successfully establish and grow to attain their full potential, thus delivering numerous benefits, two key issues are planting the tree correctly and providing aftercare. Planting specifications for the different types of tree stock are detailed below. All newly planted trees must be checked regularly during their first season, especially after windy conditions.

#### 4.3.1 Timing

- Bare root and rootballed stock - September to April inclusive.
- Container grown stock including “Airpot” material- September to May inclusive.
- Evergreen material – September/November or March/May.
- Preference for planting is during the autumn/early winter period.
- Planting should never be carried out during periods of hard frost or when snow is on the ground.

#### 4.3.2 Pre-planting care

Check the trees on delivery to ensure that the correct species and numbers have been supplied. Carefully check the condition of trees for damage/pests/disease before accepting delivery. Do not accept sub-standard stock which is highly likely to fail when planted out. It is essential that tree stock is properly transported and stored before planting out. The roots of barerooted stock must be kept moist and covered at all times, to prevent the fine root hairs from drying out. Keep the trees in the plastic bag until the moment you are ready for planting. When transporting/storing bags, stack upright in a single layer and keep away from rodents (voles, mice, rabbits etc.). Cover larger sized stock with a tarpaulin when transporting/storing to prevent water loss via transpiration from leaves due to the wind. Water containerised or container grown stock the day before planting.

#### 4.3.3 Notch planting

Forest whips are usually supplied as barerooted stock. A 1+1 has been grown in a nursery bed for a year then transplanted and grown for another year. A 1 u 1 has been grown for a year, then undercut and grown for another year. The reason for transplanting or undercutting is to promote a fibrous, branching root system, which will sustain the tree when it is planted out.

First clear any vegetation with the spade to create a bare soil planting area. Make a T cut, by pushing the spade into the ground then making a second cut at 90° [see *Figure 1*]. Lever the spade back and twist to one side to open a notch into which the tree can be slid into position and pulled up slightly to spread the roots. Gently firm down the soil with your boot, to close the notch, taking care not to scrape the bark on the stem.

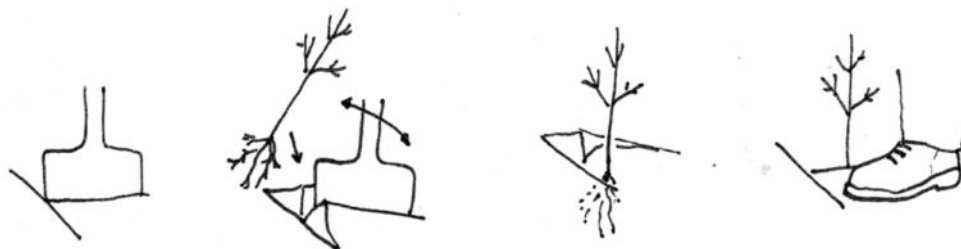


Figure 1: Notch planting technique for forest whips.



## 4.3 Tree planting specifications (continued)

### 4.3.4 Cell-grown plugs

Cell-grown trees are one-year old seedlings grown in special tall, narrow pots (plugs) which promote good downward growth without spiralling. Once roots start to grow spirally inside a pot they tend to continue growing spirally even when planted out.

An ordinary planting spade can be used, but utilising a specialist ‘spear’ is easier and it makes a correct sized hole for the plug. Clear any vegetation to prepare a bare soil planting area. Insert the spear vertically then push it back and forth slightly, before twisting through 180° and remove [see *Figure 2*]. Carefully position the plug in the hole, making sure the top of the plug is 12mm (1/2”) below the soil surface. Insert the spear 5cm (2”) from the plant and pull the handle towards you, to the spear firms the soil at the base of the plug. Then push the handle away from you to firm the soil at the top of the plug. It is important that there is good contact between the sides of the plug and the soil so the plug does not dry out. Cover the top of the plug with a handful of soil before gently firming the soil with your boot, taking care not to damage the plant.

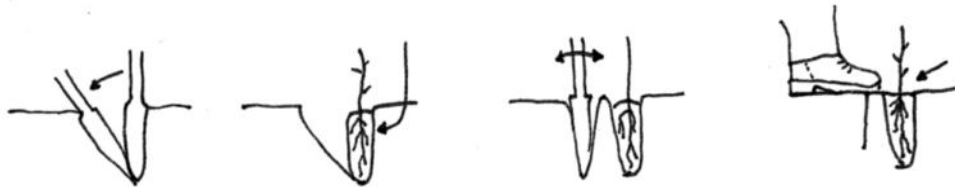


Figure 2: Cell-grown plug planting technique.

### 4.3.5 Tree pits

For larger tree stock (rootballed, containerised or container grown), a tree pit should be prepared.

If planting into grass, a circle of turf will be removed, 1.5m diameter, minimum: increase diameter for larger trees. The turf can be placed inverted into the bottom of the tree pit once it is dug. A square hole will be dug within the circle, to a depth of the rootball or a minimum of 300mm, i.e. a spit depth. Research has shown that wide rather than deep planting holes result in better tree establishment, therefore dig the hole twice as wide as the rootball [see *Figures 3 and 4*]. It is also thought that root penetration outside the tree pit is quicker and easier through the corners of a square hole rather than round. For semi-mature trees, the tree circle will be a minimum of 3m diameter and the depth of the rootball. Soil removed from the tree pit will be put back and no new soils will replace the backfill removed.



Figure 3: Tree pit for barerooted stock.

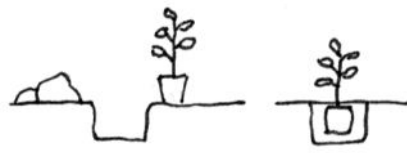


Figure 4: Tree pit for containerised or container-grown tree stock.





## 4.3 Tree planting specifications (continued)

### 4.3.5 Tree pits

The tree should be placed upright in the centre of the tree pit and the roots spread out around the hole in order to encourage them to grow out to the corners of the square pit. Where plants have been grown in containers, the container should be removed and the roots should be teased out and encouraged to grow outwards. For rootballed stock the wire netting should be removed and the hessian removed from the top and partway down the sides of the rootball. Planting depth is critical; planting too deep is the cause for a high percentage of tree planting failures. The root collar/hypocotyl should be level with the surrounding ground. By using the shallow planting method, it is unnecessary to allow for settlement. A mycorrhizal inoculant can be added to the area around the roots prior to back filling; the application rates will depend on the product in use at the time and the size of the tree to be planted.

As the pit is backfilled with soil, gently shake barerooted stock, to ensure the soil settles around the roots. The pit should be backfilled in shallow layers and should be firmed evenly around the roots of the tree. Care should be taken not to compact directly on or around the roots. Brittle-rooted plants such as magnolias can be damaged by heavy firming and are best settled by light kneading or watering in. If the site is thought to have poor, dry soil conditions, a water retentive material/agricultural polymer can be incorporated into the backfill at a rate of 160 grammes per planting hole. It is important that any water retentive material is thoroughly mixed before back filling, to avoid swelling and subsequent heave of the plant.

Note: If the tree requires supporting with stakes and tree ties, don't completely backfill the hole. Drive the stake into the bottom of the pit on the windward side of the tree, using a fencing mallet or a post-knocker, as close as possible to the rootball without damaging it. The stake should finish at a height no more than one third of the height of the tree.



## 4.0 TREE PLANTING (continued)

### 4.4 Tree support

A stake will only be used where deemed necessary, dependent on nursery stock size. Where small nursery stock requires support, a stout cane and the 'Max Tapener' system or nursery tying tube will be used. Where the root size of a newly planted tree and cane does not provide adequate anchorage or support, the use of a short stake and a single tie will be used wherever possible. The stake will be round and extend to one third of the overall tree height, (see Figure 5). Fit the tree tie loosely around the tree (no more than 30mm from the top of the stake) to form a figure of eight, or have a spacer between the tree and stake to prevent chafing. Most tree ties will need nailing to the stake to stop them slipping. Leave approximately 5mm of the nail protruding to allow for easy adjustment during the growing season. Buckle ends should be against the stake, not the tree. Check the stake and tie frequently, adjusting as required. The tie should be removed at the beginning of the second growing season, by which time the tree should be securely anchored by its roots.

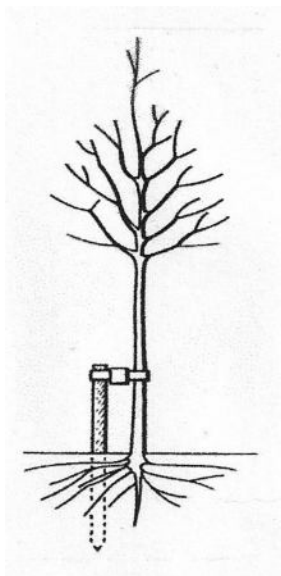


Figure 5: Low short staking technique.

Where it is not possible to use a single stake, i.e. a rootballed tree or bent trunks, oblique stakes or crossbar staking can be used (see Figure 6).

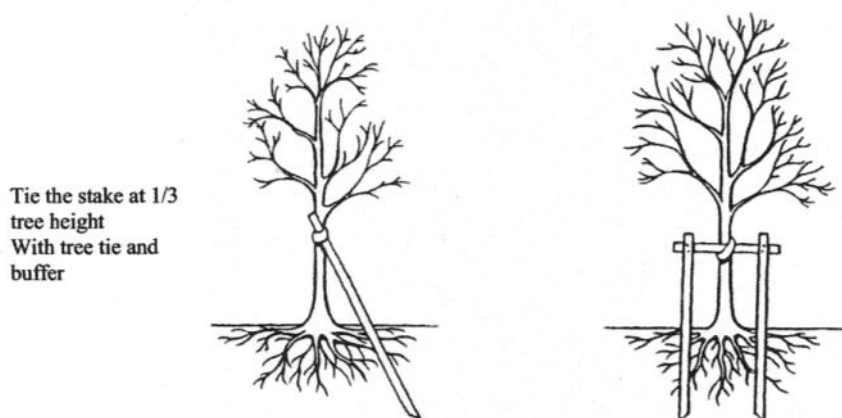


Figure 6: Oblique and crossbar staking techniques.



## 4.0 TREE PLANTING (continued)

### 4.5 Pest Protection

Trees in woodland locations can be fitted with a spiral guard or tree shelter for protection from voles, rabbits, hares and squirrels (see *Figure 7*). Evergreen trees require mesh cages. Hedgerow plants are usually protected with quills. When fitting protection, the base can be gently pushed into the soil, (taking care not to damage the tree) to prevent voles etc. from gaining access to the tree. The tree protection must be checked for expansion regularly and removed or adjusted appropriately.



Figure 7: Tree shelter installed on a forest whip.

### 4.6 Mulching

Weed competition can seriously affect the health of newly planted trees. To suppress weeds, a layer of organic mulch can be applied, which will also benefit the tree by helping to retain soil moisture and protecting roots during periods of frost. The organic mulch also encourages soil micro-organisms (e.g. earthworms), which will incorporate the organic matter into the topsoil, aiding soil structure, drainage and release of essential nutrients.

If planting is carried out during a dry period, ensure that the tree is irrigated prior to applying the mulch. [Note: Small forest whips can have plastic mulch mats installed at planting]. For larger sized stock, the tree circle should be mulched with a 7.5cm (3”) layer of woodchip mulch, taking care not place it too close to the root collar, or ‘volcanoing’ around the base as this will cause the bark to rot and invasion by disease. Ensure that a space of a minimum of 100mm is left free of mulch around the root collar to avoid contact of the mulch with the trunk.

### 4.7 Aftercare

Where tree support was required (stakes/ties), once root anchorage has developed, the stake and tie should be removed. Provided the soil conditions are suitable for root growth, this period should be no more than 18 months, (usually remove at the start of the second growing season after planting). It is important to check tree ties regularly, especially after windy periods and adjust as necessary.

Areas of forest whips should be checked during the second planting season, by ‘beating up’. This is a forestry term that refers to checking the new tree planting, removing any dead/diseased/damaged trees and planting replacement trees. This helps ensure a minimum 80% success rate for new tree planting. Any replacement trees should be protected and mulched in the same way as the initial tree planting.



## 4.0 TREE PLANTING (continued)

### 4.7 Aftercare

Adequate irrigation is essential in order for newly planted trees to successfully establish. It is recommended that hydration bags are used (slow release watering over a 3-5 day period), or an irrigation system is installed around the rootball during planting, where water is poured into a coiled perforated drainage pipe, fitted with a lockable cap.



Figure 8: Hydration bag.



Figure 9: RootRain Urban irrigation system.

For agricultural polymers to be of benefit to the survival and growth of newly planted trees, a regular input of water is required in order to ‘recharge’ the product, therefore regular irrigation must be carried out during periods of drought. Young trees will only be fed if needed from their second growing season in-situ every year until their fifth year. Organic fertilizer is used at approx. 40 grammes per tree.

The tree circle will be kept clear of weeds at all times, as competition for moisture and nutrients reduces survival and growth of newly planted trees. Effective weed control must therefore be regularly carried out to free the tree roots from this competition. Woodchip mulches are quite effective, but usually need to be complimented by hand weeding, or spraying with an Approved Label herbicide, by a suitably qualified operator.

From the second growing season after planting, larger tree stock (feathered/half-standard/standard/heavy standard) can begin to be formative pruned [in accordance with BS3998 ‘Recommendations for Tree Work’, 2010] to remove dead/diseased/damaged branches and developing a strong framework of branches.



## 5.0 PROVISION OF BIRD NESTING OPPORTUNITIES

### 5.1 Hedge planting

Future bird nesting opportunities will be improved through the planting of new native species hedgerows. As these hedgerows mature, they will provide a natural habitat for nesting birds. Similarly, planting understorey species will provide additional natural habitat for bird nesting and food sources.

### 5.2 Bird nesting boxes

New hedgerows will take time to establish and mature. To provide an immediate improvement, bird nesting boxes will be installed on larger mature trees around the site. The precise locations can be selected by the ecologist when the bird boxes are installed.

## 6.0 ECOLOGICAL IMPROVEMENTS

### 6.1 Bat boxes

Provision of bat roost habitat will be made through installing bat boxes on suitable large mature trees around the site. A wall-mounted bat box (or an integrated bat box built into the soffits) will be installed on the South or West-facing exterior walls of the buildings [one box on each dwelling, plots 1-14] at 2-3m height (to avoid predation by cats).

### 6.2 Other ecological benefits.

By planting new trees, which will increase the diversity of the woodland mix, new food sources can be provided for birds and other wildlife (in particular badgers). Hedgehog houses will be provided near the new hedges in the woodland. An artificial hibernacula for amphibians/reptiles will be constructed in a suitable location within the woodland.

## 7.0 RETENTION OF DEADWOOD HABITAT

Where safety considerations allow, fallen and standing deadwood will be retained for wildlife conservation. Many species of invertebrates require suitable deadwood habitats for shelter and as a food source. These insects in turn are preyed upon by birds and other fauna. Many saprophytic fungi live on deadwood. As fungi decompose the wood, nutrients are released back into the soil, which are essential for plants and trees, so fungi act as natural recyclers in the holistic ecological cycle. Standing dead trees also provide habitat for nesting birds and roosting bats, so will be retained wherever practical.

Tree safety surveys will need to be carried out at regular intervals. Where deadwood is posing a risk to safety of property or people, branches that cannot be retained will be shortened in length or removed. The resulting deadwood can be stacked on the ground as habitat piles. Where practical, the crowns of dead trees will be stripped out, to leave the trunks as standing monoliths. Where dead trees cannot be safely retained, they will be felled to ground level and the timber arisings will be left in long sections on the ground for deadwood habitat.



## 8.0 MECHANISM FOR IMPLEMENTING PLAN

### 8.1 Legal framework

The developer will need to have a suitable legal framework in place which specifically addresses the ownership and management responsibilities of the woodland area. This is outside the remit of this management report and the developer should obtain professional legal advice.

Trying to organise the numerous new property owners/tenants to undertake specific tasks at certain times is likely to be fraught with problems. To simplify matters a suggestion is that each owner/tenant signs a management agreement/covenant, with an annual maintenance fee levied.

### 8.2 Contractor

It is proposed that a suitably qualified and insured contractor be instructed to carry out the various tasks, so that the work can be carried out to comply with Industry Best Practice and to ensure a consistency in standards of work. An annual maintenance charge could be levied on the new property owners/tenants, to provide the required funds to finance the work.

### 8.3 Involving new property owners/tenants

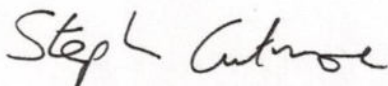
Good communications will be essential for the Woodland Management Plan to be implemented successfully. The developer should appoint a suitably competent person to act as a Woodland/Site Maintenance Manager (possibly the contractor), who will keep all the owners/tenants informed as to what the annual programme of works is, to encourage them to participate in various ways and to resolve any issues that arise.

Inviting the new property owners to be involved in the Woodland Management Plan will give them a sense of inclusion and that their views are given fair consideration. Involving local residents has been shown to greatly enhance the success of tree planting projects. By inviting the residents to be involved in the planting work gives them a sense of ownership, which may result in reduced acts of vandalism. Involving them in caring for the new trees, (e.g. watering during dry periods), also improves the successful establishment of newly planted trees. Similarly, involving them in selecting suitable locations to install bird nesting boxes and bat boxes will hopefully encourage them to participate in caring for the wildlife living within the woodland.

### 8.4 Appraisal of woodland and preparation of a new Woodland Management Plan

In Year 10 of this management plan, the woodland should be re-assessed and the previous works appraised. A new management plan should be developed, to ensure the continued retention of woodland cover on the site. The plan should detail strategies to achieve the objective of nurturing a diverse, species-rich, uneven age structure woodland, which benefits both the local community and the wildlife that live there.

Written and compiled by



Stephen Cutmore BSc (Hons), MICFor, MArborA,  
Chartered Arboriculturist

Client: NPD Ltd  
Ref: 082023/WMP/JR

Woodland Management Plan  
Oak Drive, Colwyn Bay

22 August 2023  
page 14 of 21



## APPENDICES

Client: NPD Ltd  
Ref: 082023/WMP/JR

Woodland Management Plan  
Oak Drive, Colwyn Bay

22 August 2023  
page 15 of 21



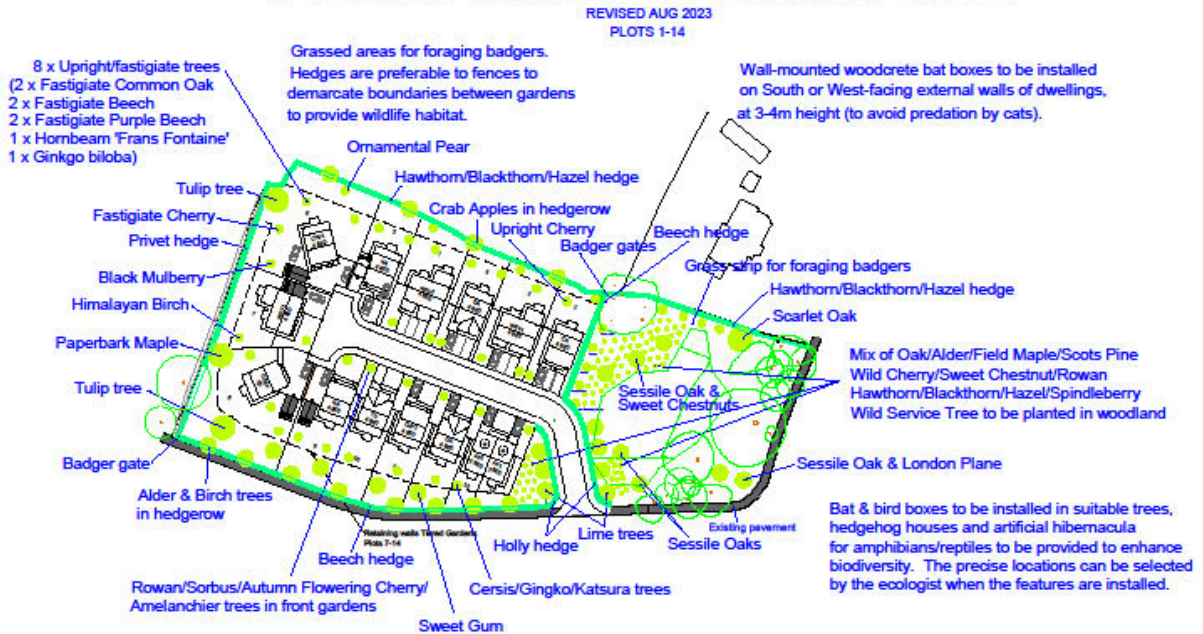
21 Maes-y-Dre, Ruthin, Denbighshire. LL15 1DB  
Email: [treevival@gmail.com](mailto:treevival@gmail.com)  
Mobile: 07877120981      Tel: 01824 709650



## APPENDIX 1 – Site plan (to scale)

Please also see pdf version of ‘Oak Drive Aug 2023 WMPlan plots 1-14’ provided with report, in order to zoom in to see detail easier.

### WOODLAND MANAGEMENT PLAN WITH LAYOUT





## Appendix 2 – Woodland management plan (Initial Planting Work)

The new tree/hedge planting work within each property boundary shall be carried out when that property is substantially complete and in any event prior to the occupation of that property. The woodland works shall be retained for the lifetime of the plan and any tree failures (within 10 years) are to be replaced with a tree of the same size and species.

Task	Year 1
Plant new trees in woodland area near Northwest and Southwest of woodland at 2.5m centres (6.25m <sup>2</sup> ). Mixture comprised of Alder, Blackthorn, Common Oak, Field Maple, Hawthorn, Hazel, Holly, Lime, Rowan, Scots Pine, Sessile Oak, Spindleberry, Sweet Chestnut, Wild Cherry, Wild Service tree. Area approx. 200m <sup>2</sup> = 32 trees (approx. 2 plants per species). Select barerooted (40-60cm) for most species. Holly probably supplied as 2L container grown.	•
Plant Blackthorn/Hawthorn/Hazel hedge on North boundary plots 1-6 and woodland, 45cm spacing double row staggered herringbone pattern. Approx. 148m length = 740 trees. Select barerooted (40-60cm).	•
Plant Beech hedge adjacent to East boundary of plot 1, 45cm spacing double row staggered herringbone pattern. Approx. 29m length = 145 trees. Select barerooted (40-60cm).	•
Plant 5 x Standard trees [2 x Rowan, 1 x Amelanchier, 1 x Sweet Gum, 1 x Autumn Flowering Cherry] in woodland adjacent to new Beech hedge on East boundary of plot 1. Select rootballed or containerised as available.	•
Plant Holly hedge adjacent to East and West side of new access road, 45cm spacing double row staggered herringbone pattern. Approx. 55m length = 275 trees. Select 2L container grown.	•
Plant 1 x Scarlet Oak standard in woodland near North boundary. Select rootballed or containerised as available.	•
Plant 4 x Sessile Oak, 2 x Sweet Chestnut, 1 x London Plane standards in West and Southeast of woodland (to replace Ash trees removed). Select rootballed or containerised as available.	•
Plant 7 x Large-leaved Lime standards adjacent to new access road (3 on West, 4 on East). Select rootballed or containerised as available.	•
Plant 4 x Crab Apple standard trees within hedge and 4 x Ornamental Pear standard trees in grass strip near North boundary of plots 1-6 and 4 x Crab Apple standard trees within grass strip in woodland near North boundary Select rootballed or containerised as available.	•
Plant 13 x standard trees in front gardens of plots 1-5, 7 and 9-14 . Select 3 x Amelanchier, 3 x Autumn Flowering Cherry, 2 x Rowan, 1 each of Sorbus [(‘Cashmiriana’, ‘Hupehensis’, ‘Joseph Rock’), 1 x Sweet Gum.	•
Plant 9 x Standard trees on bank adjacent to fence at rear (North) of plots 1-6. Select 2 x Dawyck Beech, 2 x Dawyck Purple Beech, 2 x Fastigiata Common Oak, 1 x Maidenhair Tree, 1 x Upright Hornbeam, 1 x Upright Cherry. Select rootballed or containerised as available.	•
Carry out routine tree maintenance aftercare (weeding, ‘beating up’, check stakes/ties, watering, fertilising, formative pruning).	•
Install 2 x Schwegler bird boxes in suitable trees in woodland area Select one 1B 26mm hole box and one 1B 32mm hole box.	•
Install 2 x Schwegler bat boxes in suitable trees in woodland area. Select one 45-2FD FP and one 55-1FD triple FP box.	•

Client: NPD Ltd  
Ref: 082023/WMP/JR

Woodland Management Plan  
Oak Drive, Colwyn Bay

22 August 2023  
page 17 of 21



## Appendix 2 – Woodland management plan (Year 2 onwards)

The new tree/hedge planting work within each property boundary shall be carried out when that property is substantially complete and in any event prior to the occupation of that property. The woodland works shall be retained for the lifetime of the plan and any tree failures (within 10 years) are to be replaced with a tree of the same size and species.

Year 2 after one year of occupation of plots 1-3 (plots 4-14 likely to commence approx. Year 2 or 3).

Task	Year 2	Year 3
Plant Beech hedge on South boundary of plots 8-14, 45cm spacing double row staggered herringbone pattern. Approx. 99m length = 495 trees. Select barerooted (40-60cm).	•	
Plant Privet hedge on West boundary of plots 6-8, 45cm spacing double row staggered herringbone pattern. Approx. 74m length = 370 trees. Select barerooted (40-60cm).	•	
Plant 4 x Alder and 4 x Birch standards within hedge on South boundary of plots 8-14. Select rootballed or containerised as available.	•	
Plant 9 x Standard trees [3 x Maidenhair Tree, 3 x Judas Tree and 3 x Katsura] in rear (South) gardens of plots 8-13. Select rootballed or containerised as available.	•	
Plant 2 x Tulip Tree, 1 x Black Mulberry, 1 x Himalayan Birch, 1 x Paperbark Maple, 1 x Upright Cherry in rear (West) gardens of plots 6-8 and 4 x Sweet Gum standard trees on bank near South boundary of plots 6-14.	•	

Task	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Plant new trees in woodland area near East of site at 2.5m centres (6.25m <sup>2</sup> ). Mixture comprised of Alder, Blackthorn, Common Oak, Field Maple, Hawthorn, Hazel, Holly, Lime, Rowan, Scots Pine, Sessile Oak, Spindleberry, Sweet Chestnut, Wild Cherry, Wild Service tree. Area approx. 200m <sup>2</sup> = 32 trees (approx. 2 plants per species). Select barerooted (40-60cm) for most species. Holly probably supplied as 2L container grown.				•					
Carry out routine tree maintenance aftercare (weeding, 'beating up', check stakes/ties, watering, fertilising, formative pruning).	•	•	•	•	•	•	•	•	•
Selectively 'thin' natural regeneration.				•					
Install 1 x Schwegler bird box in vicinity of each property. Select either 1B 26mm hole box or 1B 32mm hole box.	•								
Install 1 x Schwegler 2FE wall-mounted bat box (or integrated bat box in soffit) on South or West elevation wall of each property on plots 1-14.	•								
Licensed bat worker to check bat boxes.	•	•	•	•	•	•	•	•	•
Qualified Arboriculturalist to carry out tree safety survey and provide report with management recommendations.	•			•			•		
Carry out recommended works in tree safety report	•			•			•		
Re-assess woodland and prepare new management plan.									•

Client: NPD Ltd  
Ref: 082023/WMP/JR

Woodland Management Plan  
Oak Drive, Colwyn Bay

22 August 2023  
page 18 of 21



## Appendix 3 – Bird nesting boxes



Photo 1: Schwegler 1B nesting box 32mm hole.



Photo 2: Schwegler 1B nesting box 26mm hole.

Client: NPD Ltd  
Ref: 082023/WMP/JR

Woodland Management Plan  
Oak Drive, Colwyn Bay

22 August 2023  
page 19 of 21



## Appendix 4 – Bat boxes



Photo 3: Schwegler 45 2-FDFP bat box.



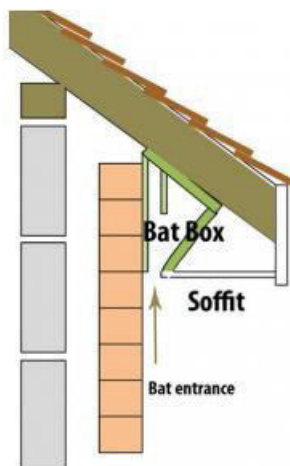
Photo 4: Schwegler 55 1FD triple front panel bat box.



Photo 5: Schwegler 1FQ wall-mounted bat box.



Photo 6: Soffit bat box.



## APPENDIX 5 – Consultant Profile



### Stephen Cutmore

BSc (Hons) Arboriculture & Urban Forestry

Chartered Arboriculturist

Member of the Institute of Chartered Foresters (Professional 772508)

Institute of Chartered Foresters Registered Consultant

Member of the Arboricultural Association (Professional 3755)

Member of the International Society of Arboriculture (Professional 84047)

Stephen Cutmore has over thirty five years' experience in the arboricultural and forestry industry as a contractor and during this period over twenty five years' experience as an arboricultural consultant.

He has specialist knowledge in advanced inspections of hazard trees, utilising hi-tech specialist equipment (Picus Sonic Tomograph, Picus TreeTronic, IML Resistograph PD400 microdrill, IML Fractometer, Picus Wind Motion Sensors, Fakopp DynaTree/DynaRoot).

Stephen has attended three Masterclasses for the Picus and one Masterclass for the Resistograph, run by the UK distributors, Sorbus International.

He is also Tree Risk Assessment Qualified [TRAQ] (International Society of Arboriculture).

Stephen has attended the AA 'Getting to Grips With Subsidence' and follow-up 'Subsidence Investigation workshop' training courses.

Stephen is a Certified Veteran Tree Specialist (VETcert Consulting Level).

Stephen also has over fifteen years' experience as an ecological consultant. Stephen has held a Bat Licence since 2007 and a GCN Licence since 2011 [current bat licence with NRW (NRW[S091618/1]) and GCN licence with NRW (NRW[S092048/1]). He is a member of Clwyd Bat Group and a member of the Bat Conservation Trust (102994).



Veteran tree specialist  
– Consulting level

Client: NPD Ltd  
Ref: 082023/WMP/JR

Woodland Management Plan  
Oak Drive, Colwyn Bay

22 August 2023  
page 21 of 21

