Land to the West of Port Road, Wenvoe

Ecological Construction Method Statement & Ecology and Landscape Management Plan

Prepared by: The Environmental Dimension Partnership (EDP)

On Behalf of: Redrow Homes (South Wales)

April 2014 Report Reference **EDP1637_04c**

ECOP THE ENVIRONMENTAL DIMENSION PARTNERSHIP



NVIRONMENTAL PLANNING, DESIGN AND MANAGEMENT SERVICES FOR ALL INVOLVED IN PROPERTY AND DEVELOPMENT

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For EDP use Report no.	C_EDP1637_04c
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Section 1 Introduction, Context and Purpose

- 1.1 This Ecological Construction Method Statement (ECMS) and Ecology and Landscape Management Plan (ELMP) has been prepared by The Environmental Dimension Partnership (EDP) on behalf of Redrow Homes (South Wales), hereafter referred to as 'the Developer'.
- 1.2 Planning consent for the residential development of land to the west of Port Road, Wenvoe (Reference 2013/00884/OUT, **Appendix EDP 1**), has recently been granted by Vale of Glamorgan Council for the development of up to 140 dwellings with associated parking, access and public open space.
- 1.3 Given that the development site supports some habitats considered suitable for wildlife such as bats, reptiles and birds, a number of planning conditions are attached to the consent, as extracted below.

1.4 **Condition 13**:

"The development hereby approved shall be in accordance with the recommendations of the submitted 'Ecological Baseline Report' (EDP 2012), including provision of a 'Woodland Management Scheme' (to cover the following 25 years post construction), unless otherwise agreed in writing by the Local Planning Authority. Details of the ecological mitigation shall be submitted with any subsequent Reserved Matters application relating to this approval".

1.5 **Condition 14**:

"Prior to the commencement of development a 'Ecological Construction Method Statement' shall be submitted to and approved in writing by the Local Planning Authority. The agreed Method Statement shall be implemented as agreed throughout the course of construction of the development hereby approved".

1.6 **Condition 15**:

"Prior to the commencement of development details of a scheme for the clearance of reptiles from the site shall be submitted to and approved in writing by the Local Planning Authority. The scheme of clearance as approved shall be implemented prior to the commencement of development, including any land clearance".

1.7 **Condition 16**:

"A scheme of ecological enhancement shall be submitted with the Reserved Matters application in connection with the on-site sustainable surface water drainage, such as

the provision of a 'wet basin'. The scheme shall include a timeframe of works and details of maintenance. The development shall be in accordance with the agreed scheme".

1.8 **Condition 17**:

"The Reserved Matters submission to follow this Outline approval shall be accompanied by an Ecology and Landscape Management Plan. The agreed Ecological and Landscape Management Plan shall be implemented in full accordance with its recommendations and details in perpetuity, unless otherwise agreed in writing by the Local Planning Authority".

1.9 **Condition 18**:

"The Reserved Matters application, to follow this approved Outline approval, should be supported by a lighting strategy for the development, which should include reference to ecology matters such as safeguarding light sensitive species. The development shall thereafter be in accordance with the approved lighting strategy".

1.10 **Condition 20**:

"The proposed landscaping scheme shall include details of an ecological enhancement of the site, and any enhancements thereby identified shall be implemented in the first planting season following the completion of the development unless otherwise agreed with the Local Planning Authority".

- 1.11 This ECMS/ELMP, together with those documents referenced herein, has therefore been produced in response to those conditions set out above.
- 1.12 The aim of this ECMS/ELMP is to provide a management framework for the protection of site's wildlife and ecology in relation to the construction of the new residential development permitted, whilst providing a scheme for the enhancement and management of the on-site habitats and wildlife therein following the completion development.
- 1.13 The management and enhancement schemes documented within this ECMS/ELMP have been devised in relation to the findings of a number of surveys for protected and/or notable habitats and species previously undertaken in 2012, including surveys for bats, dormice, great crested newt, reptiles and badger, and are made with reference to those recommendations contained within Section 4 of EDP's previous Ecological Appraisal Report (submitted as part of the original outline planning application; report reference **C_EDP1637_03** dated August 2012).

Section 2 Scope, Aims and Responsibilities

Scope

- 2.1 This ECMS/ELMP will extend in perpetuity, requiring subsequent monitoring and review of all operations set out within this EMP at five yearly intervals. It will also aim to further the design principles established at the time of the detailed application for this development.
- 2.2 The ECMS/ELMP addresses those areas dedicated as formal and informal public open space within the development, and includes management recommendations for all features of ecological interest incorporated within the scheme including areas of woodland, mature trees, shrubs, grassland, attenuation basin and those specific features created for wildlife.
- 2.3 The management scheme defined within this ECMS/ELMP is structured to take into account the following phases of the development works:
 - Pre-construction/enabling;
 - Construction; and
 - Establishment and Management Regime Years 1-5.
- 2.4 The general scope of this ECMS/ELMP includes the following:
 - During the pre-construction/enabling works phase, this document seeks to ensure the appropriate management of any tree/vegetation works, and to actively protect and ensure the conservation of the existing trees and any other vegetated areas that are to be retained, in addition to those species of ecological importance and their associated habitats located within the scheme;
 - During the construction phase, this document seeks to protect and maintain existing features of ecological value that are to be retained within the scheme and to ensure the appropriate management and successful delivery of all new features of ecological and landscape value or interest; and
 - The long-term management and maintenance of the scheme post-construction seeks to ensure that the ecological framework is sustained and enhanced, such that all benefits to ecological biodiversity and visual amenity are delivered successfully throughout the lifetime of the scheme.

Aims

- 2.5 The overall aims of this ECMS/ELMP are:
 - To ensure development is carried out in an appropriate manner and that features and species of ecological importance are protected during the preconstruction/enabling and construction phases of the scheme; and
 - To enable the delivery of the appropriate maintenance and management of all semi-natural habitats that are to be retained, enhanced or created within the completed scheme, so as to ensure that they continue to deliver benefits for local wildlife, recreation and visual amenity.

Responsibilities

- 2.6 The responsibility for carrying out the functions of this ECMS/ELMP will vary throughout the duration of the management period as follows:
 - Pre-construction/Enabling Works Phase: All management and maintenance works of all features and species of ecological importance are the responsibility of the Principal Contractor appointed by the Developer, and are to be completed by the Principal Contractor for sign-off by the Developer prior to the start of construction;
 - Construction Works Phase: All management and maintenance works of all features and species of ecological importance are the responsibility of the Developer, and are to be continued through to practical completion; and
 - Long-term Management Post-adoption: The responsibility for the management and maintenance works of all features and species of ecological importance postadoption will be the responsibility of the individual property owners, with exception to those areas of public open space that are to be managed and maintained by either a private management company or by Vale of Glamorgan Council/Coed Cymru should such areas be subject to adoption.
- 2.7 The management scheme detailed within this ECMS/ELMP will cover the provision, management, inspection, maintenance, repair and replacement as necessary, taking into account factors including ecological, landscape, social, wildlife and amenity use for the land.

Section 3 Site Description, Existing and Proposed Ecological Features

Site Description

3.1 The consented development site measures approximately 7 hectares and comprises predominantly arable land with a single, small grassland field located at its south eastern end. A number of small woodland blocks (W1-W4, as illustrated within **Appendix EDP 2**) are also supported along the site's peripheries to the north east, south east, south, and west, with scattered trees, scrub and hedgerows also present. The wider area comprises the residential area of Wenvoe and Wenvoe Wood (a block of ancient woodland) located to the immediate north, with Port Road (A4050) and open agricultural fields to the east, a commercial garden centre to the south, and wider agricultural land and woodland to the west.

Ecological Features

- 3.2 The following valued ecological resources were identified during previous ecological work undertaken in 2012 (Ecological Appraisal Report, August 2012, **C_EDP1637_03**):
 - Woodland blocks comprising broadleaved woodland along the southern, eastern and western boundaries;
 - A species-rich, intact hedgerow connecting the southern and eastern woodland blocks;
 - Scattered, mature trees;
 - A small field comprising semi-improved grassland;
 - Bat commuting, foraging and potential roosting habitat;
 - Reptile foraging and basking habitat; and
 - Bird nesting habitat.
- 3.3 In addition, a stand of Himalayan knotweed (*Persicaria wallichii*) occupies the north eastern corner of the site (subject to removal as per the Invasive Vegetation Report, December 2012 previously submitted), whilst other non-native, invasive species including cotoneaster (*Cotoneaster sp.*) and Wilson's honeysuckle (*Lonicera nitida*) are also present within the southern woodland blocks.

Changes to Ecological Features

Ecological features to be removed

- 3.4 The development will result in the loss of species-poor, semi-improved grassland comprising the southernmost field of the site, known to support common reptiles such as slow-worm (*Anguis fragilis*) in addition to providing foraging opportunities for bats. However, such species are considered capable of being supported by the retained, enhanced and newly created areas comprising woodland, grassland, and tree planting, as described further below.
- 3.5 Additionally, vegetation loss relating to trees and scrub will also arise, including: the removal of a minimal number of trees across the site in addition to scrub loss aligning the development/woodland edge along the woodland blocks; the loss of a small area of willow (*Salix* spp.) scrub located within the site close to the western woodland block; the loss of hedgerow trees required to facilitate the construction of an access road from Port Road through the site; and the loss of scattered trees fronting Port Road itself. Such features are known to be utilised by foraging and commuting bats, for which enhancements elsewhere across the site are proposed as compensation, as described below.

Ecological features to be retained and enhanced

- 3.6 Inherent mitigation measures have been incorporated into the development design, which aims to retain and enhance those valued resources listed above within the scheme where possible. This has been achieved through three main design principles:
 - The retention and positive management of all woodland blocks retained along the western, southern and eastern site boundaries;
 - The retention and strengthening of the tree line forming the eastern boundary of the site; and
 - The retention and further enhancement of the hedgerow resource through new planting.
- 3.7 More specifically, these include:
 - The retention, enhancement and maintenance of woodland blocks W1-W4 on site through the implementation of a sensitive woodland management regime over the long-term;
 - The retention, enhancement and sensitive management of the tree line along the eastern site boundary through the reduction of ruderal and scrub vegetation and replacement with suitable planting including native species for wildlife;

- The minimisation of hedgerow loss through the sensitive design and narrowing of the main access route from Port Road through the site;
- The strengthening of the hedgerow aligning the western boundary of the site through planting with additional species including dogwood (*Cornus sanguinea*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), and honeysuckle (*Lonicera periclymenum*);
- The additional planting of trees, shrubs and perennial vegetation across the site, including within areas of informal public open space such as: around the attenuation basin and Local Equipped Area of Play (LEAP) situated adjacent to the eastern boundary, and at the southern entrance to the site.

Ecological features to be created

Attenuation Basin/Kickabout Area

- 3.8 The northern and north eastern margins will be specifically designed for its biodiversity and wildlife value through the provision of appropriate tree and shrub planting designed to form a dense belt around this edge (as illustrated within the landscape planting plans included within **Appendix EDP 2**). Such planting will aim to provide a key refuge for wildlife whilst discouraging public access. Species to be incorporated include native and fruit-bearing species such as hazel, hawthorn, blackthorn, blackcurrant (*Ribes nigrum*), rasberry (*Rubus idaeus*), and goat willow (*salix caprea*).
- 3.9 Such boundaries will also be further enhanced through additional landscape planting of tree standards such as Chinese red birch (*Betula albosinensis*) and English oak (*Quercus rober*) proposed along the north western, south eastern and eastern edges of this area of public open space. In addition, Emorsgate EM1 wildflower seed-mix, comprising up to 12 wildflower species and four grass species selected for their wildlife value, is to be applied around the edges of the attenuation basin/kickabout are and LEAP adjacent.
- 3.10 The central areas of the attenuation basin/kickabout area and LEAP adjacent will otherwise be subject to typical amenity grassland planting and more formal management regimes so as to divert recreational use towards this area and away from the ecologically sensitive edges.

Bird and Bat Roosting Provision

3.11 A minimum of ten bat tubes and ten bird boxes will be installed within suitable buildings and mature trees across the site to further enhance roosting opportunities for a range of bat and bid species present within the local area.

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Section 4 Management Scheme

4.1 Tasks included within this ECMS/ELMP aim to ensure the appropriate maintenance and management of all ecological considerations prior to and during construction, and should be read in conjunction with those ecological conditions set out within Appendix EDP 1, and with the landscape proposals prepared for all areas of public open space across the site (Appendices EDP 2 and EDP 3).

Pre-construction/Enabling Works Phase

4.2 The pre-construction/enabling works phase is anticipated to start in summer 2014.

Pre-commencement Site Check

- 4.3 Immediately prior to the commencement of any works, an update walkover survey will be conducted by a suitably qualified ecologist to check for any evidence of badger activity within the site, and determine if any additional species-specific working methodologies should be followed beyond those set out within this ECMS/ELMP.
- 4.4 "Tool box talks" will be provided by a suitably qualified ecologist to the Principal Contractor appointed by the Developer, for distribution to all employees involved in any enabling works, to ensure that the identification and protection of birds, bats, reptiles and their habitats, in addition to the protection of the woodland blocks on site is fully understood.
- 4.5 To ensure the long-term viability and safety of all retained mature trees on site, a preconstruction assessment of the tree stock should be undertaken by an Arboriculture Association (AA) approved arboriculturalist contractor or professional arboriculturalist, with all recommendations implemented in full within three months of initial inspection. Such an inspection should be regularly updated every 18 months thereafter.

Protective Fencing

4.6 Prior to construction on site, protective fencing in accordance with BS 5837: 2005 'Trees in Relation to Construction', will be securely installed and adequately maintained along all boundaries supporting tree and boundary vegetation that are to be retained, as illustrated in the Landscape Planting Plans included as **Appendix EDP 2** within this report and previously within the Tree Report prepared by S.J. Ambler for the site (report title: *Tree Survey & Categorisation Report with Tree Constraints Plan*; dated 2012).

Sensitive Vegetation Clearance

General

- 4.7 The removal of grassland, shrubs and tree standards is anticipated within the development footprint. Scrub and ruderal vegetation will also be selectively removed along the boundaries of the site to allow for appropriate new planting.
- 4.8 Large root balls will be grubbed out in a sensitive manner to ensure no significant disturbance to soil and adjacent, retained planting. Any such excavations that occur within the root protection zone of retained vegetation will be undertaken by hand and backfilled as soon as possible or temporarily lined with polyethylene sheet to reduce evaporation.
- 4.9 Any pruning required on site, particularly in relation to tree lines, will be undertaken in accordance with those sensitive methodologies set out below with respect to roosting bats, breeding birds and reptiles, and in accordance with good horticultural and arboricultural practice. Thinning, trimming and shaping of specimens will be undertaken as appropriate to species, location, season, and stage of growth.
- 4.10 All arisings from the vegetation clearance will be taken away from the vicinity of the development footprint no later than the day after vegetation clearance.
- 4.11 To ensure the avoidance of harm or injury to protected and/or notable species, the following sensitive methodologies are proposed in relation to bats, breeding birds and reptiles below.

Roosting Bats

- 4.12 Woodland block W1 supports a number of trees having high and medium potential to support roosting bats, including three poplar trees (*Populus sp.*) and an English oak situated at the eastern and western extents of W1 respectively. In addition, a semi-mature, multi-stemmed sycamore (*Acer pseudoplatanus*) tree located along the eastern edge of W4 is also of medium potential to support roosting bats. Such features are to be retained and subject to active management throughout the lifetime of the development.
- 4.13 With respect to the remaining trees on site, the vast majority of trees supported within woodland block W2, W3 and W4 are of only low potential to support roosting bats. All other trees on site are considered to have negligible bat roosting potential.
- 4.14 With respect to any tree works proposed to semi-mature and mature tree standards present across the site, the following precautionary approach should apply:
 - Prior to commencement of tree works, including limb felling, crown reduction, or felling as a result of poor tree health or due to public health and safety concerns, an update visual inspection from the ground, followed by an aerial inspection where necessary, should be undertaken by a bat licenced ecologist and certified

tree climber to categorise all trees to be impacted with respect to their potential presence of bat roosts supported therein, in accordance with the best practice guidance¹;

- The findings of the initial inspection will inform the need for additional bat surveys to be undertaken or for precautionary working methodologies to be followed. Such precautionary measures will include the need for the supervision of works by a licensed bat worker, and/or for the sensitive timing of such works, including the avoidance the main bat active season by undertaking such works between November and February inclusive; and
- Where a bat roost is confirmed present within trees to which works are proposed, then a licence will be required in line with Conservation of Habitats and Species Regulations 2010, prior to commencement of tree works.

Breeding Birds

- 4.15 All clearance works of vegetation suitable for breeding birds, including tree, hedgerow, shrub and scrub clearance will be undertaken between the months of October and February inclusive, so as to avoid nest destruction and/or abandonment during the bird breeding season (typically March to August inclusive.
- 4.16 Where this seasonal constraint is not considered practicable however, then the following will apply:
 - In relation to trees, a suitably qualified ecologist/arboriculturalist will undertake a visual assessment of the tree(s) for bird nests prior to any tree works to ensure that appropriate working methods will be followed; and
 - In relation to small areas of low-level vegetation targeted for removal, an assessment for the potential presence of bird nests and the requirement for the creation of appropriate buffer zones around any sensitive areas identified will be undertaken immediately prior to clearance works commencing outside of the above recommended period. Should an active bird nest be discovered, however, then all works within 5m of the nest will cease until the young birds have fledged.
- 4.17 All arisings from the vegetation clearance will be taken away from the vicinity of the development footprint no later than the day after vegetation clearance.

Reptiles

¹ Hundt, L. (2012). Bat Surveys: Good Practice Guidelines: 2nd Edition. Bat Conservation Trust, London

- 4.18 With respect to areas of rough grassland, scrub edges and tall ruderal vegetation, such clearance will be confined to between the months of March to September inclusive (i.e. outside of the reptile hibernation period and to coincide with the reptile active season) so as to ensure the avoidance of harm to reptiles that may be present whilst providing opportunities for their natural displacement from the working area during the vegetation clearance.
- 4.19 The clearance of such vegetation will be undertaken in phases to ensure the protection of any wildlife, particularly reptiles, that may be present, as follows:
 - A first cut will be undertaken using hand-held machinery and will reduce the vegetation height down to a minimum of 200mm, with clearance undertaken in a direction towards adjacent, retained habitat (i.e. starting in the centre of the site and working towards the boundaries); and
 - A second cut will be undertaken immediately thereafter with vegetation cut to ground level.
- 4.20 All arisings from the vegetation clearance will be taken away from the vicinity of the development footprint no later than the day after vegetation clearance.

Construction Works Phase

- 4.21 The construction start date is anticipated to start during summer 2014.
- 4.22 Ecological management works are to be undertaken during the construction works phase. Key management operations are described below. Where repeat actions are necessary, the frequency and timings of tasks are specified accordingly.

Protective Fencing

- 4.23 Protective fencing around Root Protection Zones and boundary vegetation will be maintained at all times throughout the duration of the construction phase and until completion of the development, as illustrated in the Landscape Planting Plans included as **Appendix EDP 2** within this report and as described within the Tree Report prepared by S.J. Ambler for the site (report title: *Tree Survey & Categorisation Report with Tree Constraints Plan*; dated 2012).
- 4.24 No works (other than planting), including the storage of soil, spoil or other materials within the fenced areas, will be carried out adjacent to all areas of protective fencing/areas marked for protection as described above. The digging of trenches and pits adjacent to areas of protective fencing for new tree and scrub planting will be carried out in accordance with best practice. Underground services are to be routed to avoid fenced areas.

Vegetation Clearance/Maintenance

- 4.25 Should there be a delay between the end of the enabling works phase and the beginning of the construction works phase such that colonisation of the site by vegetation occurs, then such vegetation will be maintained at a height less than 20mm through frequent mowing or as bare ground through frequent disturbance to deter wildlife from the construction site. All arisings from any vegetation clearance will be taken away from the vicinity of the development footprint no later than the day after vegetation clearance. Such works are the responsibility of the Developer.
- 4.26 Any maintenance pruning required, particularly in relation to tree lines, should be undertaken in accordance with good horticultural and arboricultural practice with thinning, trimming and shaping of specimens undertaken as appropriate to species, location, season, and stage of growth. All arisings from any vegetation clearance will be taken away from the vicinity of the development footprint no later than the day after vegetation clearance.
- 4.27 Demolition/damage to boundary tree lines will be avoided, with exception to the small sections where repairs, new planting, or site access is required.
- 4.28 Any spoil, rubble, brash and/or debris collected as a result of the construction works will not be stockpiled within or adjacent to the construction area to ensure that reptiles are discouraged from the site.

New Planting Areas – Grassland

- 4.29 All planting and grass areas are to be cultivated and spread with a good quality topsoil to BS 3822 to a depth of not less than 150mm. Topsoil should be allowed to settle prior to sowing, planting or turf.
- 4.30 Amenity turf is to be laid to all frontages and maintained appropriate to season. Rear garden planting is to be left bare for occupier.
- 4.31 In addition to amenity grassland, wildflower grassland habitat will be created around the edge of the attenuation basin/kickabout are and LEAP adjacent, as illustrated within the planting plans included within **Appendix EDP 2**.
- 4.32 Prior to sowing, all weeds are to be removed through mechanical means or application of a herbicide. Emorsgate EM1 wildflower seed-mix will be applied at a rate of c.4 g/m² and will be rolled or treaded in to ensure a good contact with the soil.
- 4.33 Sowing of the wildflower grassland should be undertaken during late summer/autumn (late August October) or spring (April-May) in accordance with manufacturer specifications².

² http://wildseed.co.uk/mixtures/view/2/basic-general-purpose-meadow-mixture

New Planting Areas – Trees and Shrubs

- 4.34 Native shrubs and trees will be planted across the development site. The locations, planting densities, species incorporated, and maintenance of such planting areas are detailed within the planting plans included within **Appendix EDP 2**. In addition, the following management measures are to be followed.
- 4.35 All planting material will incorporate native species and will be of local or at least UK origin. Such stock will be handled in accordance with the Horticulture Trade Association guidelines and will follow landscape specification as provided by a chartered landscape architect.
- 4.36 Soil debris and arisings will be swept from adjacent hard surfaces after each maintenance operation. All extraneous rubbish not arising from the contract works will be collected and recycled (where feasible) or else removed from site at each maintenance visit.
- 4.37 All products will be supplied and fitted in accordance with the manufacture's guidelines and whips protected using 75mm peeled larch stakes and durable rubber ties.
- 4.38 The condition of all tree stakes, ties and guards will be checked by the Developer, and all broken items will be replaced and items regularly adjusted to accommodate plant growth and prevent rubbing. Any bark damage will be cut back neatly with a sharp knife. All plants will be straightened and the ground at the base to be firmed up. All shelters will be hand weeded. These tasks will be undertaken at quarterly intervals per year at a minimum.
- 4.39 Watering will be undertaken as necessary by the Developer to ensure the establishment and thriving of all planted areas. Watering will be to the full depth of the topsoil. If supply is restricted by emergency legislation watering will not be carried out unless instructed to do so.
- 4.40 A weed free area around each tree and shrub of a minimum of 1m in diameter should be maintained through the application of a non-residual herbicide twice annually during the growth season. Weed control will ensure that weed cover is less than 5% and that no weeds exceed 1m in height.
- 4.41 All areas where plants or trees have failed to thrive (through death, damage or disease) will be identified by the Developer and plants will be removed and replaced with equivalent species to match the size of adjacent nearby plants in the next appropriate planting season as frequent as necessary. The advice of the project landscape architect should be sought wherever possible. Any variation of this will only occur upon consent by Vale of Glamorgan Council.
- 4.42 All plants will be pruned to promote healthy growth and natural shape, and any dead, dying or diseased wood and suckers will be removed. Overhanging branches will be pruned to ensure that growth is prevented from encroaching onto paths, signs, sightlines

and road lighting. All pruning will be undertaken in accordance with BS 7370-4. Pruning will be undertaken annually or as appropriate to each species between October and February inclusive to avoid the main bird breeding season. All arisings will be removed for composting.

Bird and Bat Roosting Features

- 4.43 A minimum of ten bat and ten bird roosting features will be installed across specified buildings and mature trees across the site. Such features will be of woodcrete construction or similar to ensure their longevity and to minimise maintenance required.
- 4.44 Bat roosting tubes will be incorporated within the fabric of garage walls at their gable ends. Garages proposed include those associated with units 6, 9, 18, 20, 21, 66, 67, 73, 86 and 127 located close to potential bat foraging habitat including woodland edge and newly created grassland habitat, as illustrated within Appendix EDP 3.
- 4.45 Bird boxes will be installed at a minimum of 4m height above ground level upon suitable mature trees such as those situated adjacent to plots 4, 10, 14, 22, 23, 67, 74, 85, 124 and 127, as illustrated within **Appendix EDP 3**.
- 4.46 Bird and bat boxes will remain unlit through sensitive lighting design, which will ensure that no light spill upon such features will occur as a result of the development.
- 4.47 Bird and bat roosting features incorporated on site will be maintained at all times by the Developer throughout the duration of the construction phase.

Lighting

- 4.48 Temporary lighting adjacent to all woodland blocks and hedgerows on site will be maintained during the construction period at the lowest permissible level through the use of sensitive lighting design. This will include, where practicable, low-level and directional lighting to ensure minimum disturbance to species and wildlife corridors located along these features. In addition, the following is recommended:
 - The use of artificial lighting is to be limited to the essential minimum throughout the site;
 - Directional lighting/shielding of lights with accessories such as hoods, cowls, louvers and shields is to be used throughout to reduce light spill;
 - Light pointing upwards should be avoided throughout, with the spread of light being kept near to or below the horizontal;
 - Lighting with a low UV component should be used to reduce invertebrate attraction; and

• The times during which lighting is required throughout the construction phase should be controlled to avoid illumination between, and including, dusk and dawn hours, so as to allow for some dark periods for bats and other wildlife.

Section 5 Establishment and Management Regime, Years 1-5

- 5.1 This section details the management that will be undertaken for the retained and newly created ecological habitat features including the woodland blocks, areas of new woodland and tree planting, attenuation basin, wildlife roost boxes and surrounding informal areas of public open space. Reference should be made to the landscape planting plans provided within **Appendix EDP 2**.
- 5.2 The woodland management regime is anticipated to commence from summer 2014 and will be requiring subsequent monitoring and review of all operations at five yearly intervals.
- 5.3 The establishment and management regime of all other areas comprising soft landscaping is expected to begin at any point between summer 2014 and spring 2018 and will require subsequent monitoring and review of all operations at five yearly intervals.

Protective Fencing

5.4 Protective fencing shall remain in place until after final landscaping has been carried out. Thereafter, such fencing will be removed carefully, by hand, to prevent compaction or root damage. Removal of fencing can only commence following receipt of written consent of the planning authority.

Woodland Blocks W1-W4

- 5.5 Woodland blocks W1 W4 are to be managed in accordance with those management principles set out within **Appendix EDP 4** appended to this document.
- 5.6 Woodland management regimes set out by Vale of Glamorgan Council and/or Coed Cymru will necessarily override those set out within **Appendix EDP 4**, however, should such habitats be subject to adoption.

New Planting Areas - Grassland

- 5.7 Amenity grassland areas will be subject to regular management to maintain sward height at 30mm.
- 5.8 With respect to areas subject to a wildflower grassland seed mix (general wildflower mixture EM1), during the first year, perennial weeds should be removed through cutting, hand-pulling or spot-spraying with flushes of weeds controlled by topping or mowing.

Should a first cut be necessary, this will be undertaken no earlier than August to enable the establishment of the vegetation.

- 5.9 In second and subsequent years, areas of species-rich grassland should be cut no more than twice per annum, with a first summer hay cut undertaken no earlier than August, followed by a second cut between autumn and early spring thereafter. Cutting should otherwise avoid the months of May till July to enable the majority of species to have flowered and set seed.
- 5.10 Informal pathways measuring no greater than 1m in width could also be regularly mown, where appropriate, through areas of informal public open space that are otherwise managed to achieve tall sward heights. Such paths will facilitate and divert public use towards set routes thereby avoiding excessive damage to the more sensitive wildflower areas.
- 5.11 Any perennial weeds arising should be removed through cutting, hand-pulling or spotspraying when required, with flushes of weeds controlled by topping or mowing.
- 5.12 All vegetation cuttings (arisings) should be removed from the grassland area and either composted on site or removed. It is important to remove all cuttings to progressively reduce the soil fertility and thereby prevent weed dominance.

New Planting Areas - Trees and Shrubs

- 5.13 With respect to newly planted shrubs and trees proposed along the northern and north eastern edges of the attenuation feature/kickabout area, such items should be managed during the first year as detailed previously detailed above. Following this first year, other than occasional pruning to check growth, it is not anticipated that there will be the need for ongoing management.
- 5.14 In addition to the above, it is likely that a proportion of the planted stock will fail and varied species will naturally colonise the different micro-habitats. Such vegetation should be managed and maintained alongside planted vegetation as appropriate, although perennial weeds should be removed through cutting, hand-pulling or spot-spraying with flushes of weeds controlled by topping or mowing.
- 5.15 Retained and newly planted trees requiring coppicing will only be undertaken once new suckers from old stumps have developed, with coppicing allowing only one third of plants to be coppiced in any one season. Initial cuts will reduce all stems to 100-200mm above ground level. Subsequent coppicing will be undertaken on a five-yearly rotation or appropriate to species/requirements. Subsequent cuts are to be made just above the previous point of coppicing, defined by a branch collar. With all cuts the final wound surface should be smooth and angled to allow water run off.

- 5.16 All coppicing should be carried out in fair weather between October and February inclusive to avoid the main bird breeding and bat active season and minimise sap bleeding. All arisings are to be removed from site and burned or chipped and disposed at recycling facility.
- 5.17 A weed free area around each tree and shrub of a minimum of 1m in diameter should be maintained through the application of a non-residual herbicide annually during the growth season for up to five years post-adoption. Weed control will ensure that weed cover is less than 5% and that no weeds exceed 1m in height.
- 5.18 The condition of all tree stakes, ties and guards will be checked and all broken items will be replaced and items regularly adjusted or removed to ensure healthy plant growth for up to five years post-adoption.
- 5.19 Watering will be undertaken as necessary to ensure the establishment and thriving of all planted areas. Watering will be to the full depth of the topsoil. If supply is restricted by emergency legislation watering will not be carried out unless instructed to do so.
- 5.20 All areas where plants or trees have failed to thrive will be identified and plants will be removed and replaced with equivalent species to complement adjacent planting for up to five years post-adoption.
- 5.21 All plants will be pruned to promote healthy growth and natural shape, and any dead, dying or diseased wood and suckers will be removed. Overhanging branches will be pruned to ensure that growth is prevented from encroaching onto grassed areas, paths, signs, sightlines and road lighting. All pruning will be undertaken in accordance with BS 7370-4. Pruning will be undertaken annually or as appropriate to each species between October and February inclusive to avoid the main bird breeding season. All arisings will be removed for composting. Such pruning should occur for up to five years post-adoption.
- 5.22 Selective thinning of all newly planted native trees and shrubs will be regularly undertaken to ensure that overcrowding is reduced with increasing species maturity; that slower growing climax species are not outcompeted; and that diseased and dying plants are removed. Thinning is to be undertaken between October and February inclusive to avoid the main bird breeding season.

Roosting Features

5.23 Bird and bat boxes installed across the site will be inspected and maintained on an annual basis for up to five years post-adoption. Damaged boxes will be replaced where necessary.

Lighting

5.24 Directional and/or low level lighting will be implemented where located adjacent to woodland blocks and will be maintained as such to ensure minimum disturbance to species and wildlife adjacent, as per the street lighting scheme approved by Vale of Glamorgan Council.

Section 6 Monitoring and Timetable of Works

Monitoring

- 6.1 The responsibility of the undertakings set out within this ECMS/ELMP rests with the Principal Contractor appointed by the Developer for the Pre-construction/Enabling Works Phase, and with the Developer during the Construction Works Phase. Thereafter, the long-term management of all areas of public open space will be managed by either a private management company or by Vale of Glamorgan Council/Coed Cymru should such areas be subject to adoption.
- 6.2 Prior to the certified completion of the property units, the Developer shall provide the individual property owners with a written report recording any ongoing management problems experienced.

Timetable of Works

- 6.3 The pre-construction/enabling works phase is anticipated to begin during summer 2014 following the discharge of those conditions associated with the planning consent.
- 6.4 Construction works are anticipated to be fully complete by spring 2018.
- 6.5 **Table EDP 6.1** illustrates optimal and sub-optimal times of year to undertake the main tasks detailed within this ECMS/ELMP.

		Phase and Task							
Year	Month	Vegetation clearance	Protective fencing around retained features	Vegetation maintenance on site	New Planting – Trees and shrubs	New Planting – Grassland seed mix	Bird and bat box deployment	Anticipated Completion date	
2014	April		Install protective						
20	May		fencing asap prior to start of works						
	June	Optimal –							
	July	grassland					_		
	Aug					Optimal			
	Sept								
	Oct						_		
	Nov	Optimal – trees and shrubs	Maintain protective fencing				Bat tube		
	Dec				Optimal		installation		
15	Jan				opania		within		
2015	Feb			Maintenance			garage		
	Mar	Optimal – grassland		required			walls; bird		
	April			throughout the pre- construction/			box erection		
	May						on mature trees adjacent		
	June			construction					
	July			phase					
	Aug					Optimal			
	Sept								
	Oct	Optimal – trees			Optimal				
	Nov	and shrubs			Optimal				

Table EDP 6.1: Optimal and sub-optimal timings to undertake tasks anticipated in relation to the development	of land to the west of Port Road, Wenvoe
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		Phase and Task						
Year	Month	Vegetation clearance	Protective fencing around retained features	Vegetation maintenance on site	New Planting – Trees and shrubs	New Planting – Grassland seed mix	Bird and bat box deployment	Anticipated Completion date
	Dec							
16	Jan							
2016	Feb							
	Mar							
	April					Optimal	Bat tube	
	May					Optimar	installation	
	June						within	
	July						garage	
	Aug						walls; bird	
	Sept		Maintain protective			Optimal	box erection on mature	
	Oct		fencing				trees	
	Nov	Completion	reneing				adjacent	
	Dec				Optimal			
17	Jan				optimar			
2017	Feb	_					_	
	Mar							
	April					Optimal		
	May							
	June						Bat tube	
	July						installation	
	Aug					Optimal		

Land to the West of Port Road, Wenvoe Ecological Construction Method Statement & Ecology and Landscape Management Plan C_EDP1637_04c

		Phase and Task							
Year	Month	Vegetation clearance	Protective fencing around retained features	Vegetation maintenance on site	New Planting – Trees and shrubs	New Planting – Grassland seed mix	Bird and bat box deployment	Anticipated Completion date	
	Sept						within		
	Oct		Maintain protective				garage walls; bird		
	Nov		fencing				box erection		
	Dec				Optimal		on mature		
	Jan Feb						trees		
	Mar						adjacent		
	April								
	May					Optimal			
8	June								
2018	July								
	Aug				Completion				
	Sept		Removal	Completion		Completion	Completion	Site completion	
	Oct								
	Nov								
	Dec								

Appendix EDP 1 Conditions Relating to Planning Consent 2013/00884/OUT

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THE VALE OF GLAMORGAN COUNCIL

Town and Country Planning Act 1990 Planning and Compulsory Purchase Act 2004 The Town and Country Planning (Development Management Procedure) (Wales) Order 2012

OUTLINE PLANNING PERMISSION

Agent: Harmers Limited, Mr Andrew Muir, 39, Lambourne Crescent, Cardiff Business Park, Llanishen, Cardiff CF14 5GG Applicant: Redrow Homes, C/o Agent.

Residential development for up to 140 dwellings with associated access, estate roads and public open space at Land to the West of Port Road, Wenvoe

The Council in pursuance of its powers under the above mentioned Act and Order hereby **GRANTS OUTLINE PERMISSION** for the carrying out of the proposed development as described above and in accordance with the application and plans registered by the Council on 15 October 2013 subject to the following condition(s):

1. Approval of the layout, scale, appearance and landscaping of the development (hereinafter called `the reserved matters`) shall be submitted to and approved by the Local Planning Authority before any development is commenced.

Reason:

To comply with the requirements of Section 92 of the Town and Country Planning Act 1990.

2. Application for approval of the reserved matters hereinbefore referred to must be made not later than the expiration of three years beginning with the date of this permission.

Reason:

To comply with the requirements of Section 92 of the Town and Country Planning Act 1990.

3. The development to which this permission relates must be begun not later than whichever is the later of the following dates:

- (a) The expiration of five years from the date of this permission.
- (b) The expiration of two years from the date of the final approval of the reserved matters or, in the case of approval on different dates the final approval of the last such matters to be approved.

To comply with the requirements of Section 92 of the Town and Country Planning Act 1990.

4. Plans and particulars of the reserved matters referred to in Condition 1 above shall be submitted in writing to the Local Planning Authority and shall be carried out as approved.

Reason:

The application was made for outline planning permission and to comply with the requirements of Section 92 of the Town and Country Planning Act 1990.

5. Each new dwelling hereby permitted shall be constructed to achieve a minimum Code for Sustainable Homes Level 3 and achieve a minimum of 1 credit under category 'Ene1 - Dwelling Emission Rate' in accordance with the requirements of Code for Sustainable Homes: Technical Guide November 2010. The development shall be carried out entirely in accordance with the approved assessment and certification.

Reason:

To ensure the development attains the sustainable building standards required by Planning Policy Wales and TAN22 - Planning for Sustainable Buildings.

6. Construction of any dwelling hereby permitted shall not begin until an 'Interim Certificate' has been submitted to the Local Planning Authority, certifying that a minimum Code for Sustainable Homes Level 3 and a minimum of 1 credit under 'Ene1 - Dwelling Emission Rate', has been achieved for that individual dwelling or house type in accordance with the requirements of the Code for Sustainable Homes: Technical Guide November 2010.

To ensure the development attains the sustainable building standards required by Planning Policy Wales and TAN22 - Planning for Sustainable Buildings.

7. Prior to the occupation of the individual dwelling hereby permitted, a Code for Sustainable Homes 'Final Certificate' shall be submitted to the Local Planning Authority certifying that a minimum Code for Sustainable Homes Level 3 and a minimum of 1 credit under 'Ene1 - Dwelling Emission Rate', has been achieved for that dwelling in accordance with the requirements of the Code for Sustainable Homes: Technical Guide November 2010.

Reason:

To ensure the completed development attains the sustainable building standards required by Planning Policy Wales and TAN22 - Planning for Sustainable Buildings.

8. Notwithstanding the submitted plans, prior to the commencement of development, further details (including sections across and through the site) of the finished floor levels of the dwellings, in relation to existing and proposed ground levels, shall be submitted to and approved in writing by the Local Planning Authority and the development shall be carried out in full accordance with the approved details.

Reason:

In the interests of visual amenity, in order to protect the amenities of neighbouring properties and to ensure the development accords with Poliy ENV27 of the Unitary Development Plan.

9. Prior to the commencement of development, full details of a scheme for foul, and surface water drainage (SUDS), to include a timetable of implementation and details of future maintenance, shall be submitted to and approved in writing by the Local Planning Authority. These details shall be in general accordance with the conclusions with the Hydraulic Modelling Assessment, dated February 2013 and submitted to support application 2012/00933/OUT, and the approved scheme shall be fully implemented in accordance with the approved details.

Reason:

To ensure suitable drainage for the site, and to ensure compliance with the terms of Policy ENV27 of the Unitary Development Plan.

10. The implemented drainage scheme for the site should ensure that all foul and surface water discharges separately from the site and that land drainage run-off shall not discharge, either directly or indirectly, into the public sewerage system.

To prevent hydraulic overloading of the public sewerage system, pollution of the environment and to protect the health and safety of existing residents and ensure no detriment to the environment and to comply with the terms of Policy ENV27 of the Unitary Development Plan.

11. Prior to the first occupation of the first dwelling of the development hereby approved, full details of the Public Art to be provided on the site shall be submitted and approved by the Local Planning Authority. The public art shall thereafter be installed on the site in accordance with the approved scheme within 12 months of the beneficial use of the first dwelling and thereafter maintained.

Reason:

To ensure that public art is provided integral to the development in accordance with the Public Art SPG and Policy ENV27 of the Unitary Development Plan.

12. The Reserved Matters application shall be supported by a noise assessment, relating to the road noise from the A4050 adjacent to the site and how this noise might be mitigated from effecting future residents of the development hereby approved and the development should be completed in accordance with the agreed mitigation measures.

Reason:

To ensure the Reserved Matters application identifies and considers potential noise constraints.

13. The development hereby approved shall be in accordance with the recommendations of the submitted 'Ecological Baseline Report' (EDP 2012), including provision of a 'Woodland Management Scheme' (to cover the following 25 years post construction), unless otherwise agreed in writing by the Local Planning Authority. Details of the ecological mitigation shall be submitted with any subsequent Reserved Matters application relating to this approval.

To ensure protection for protected species, in accordance with Policy ENV16 of the Unitary Development Plan.

14. Prior to the commencement of development a 'Ecological Construction Method Statement' shall be submitted to and approved in writing by the Local Planning Authority. The agreed Method Statement shall be implemented as agreed throughout the course of construction of the development hereby approved.

Reason:

To safeguard protected species and biodiversity at or near the site, in accordance with Policies ENV27 and ENV16 of the Unitary Development Plan.

15. Prior to the commencement of development details of a scheme for the clearance of reptiles from the site shall be submitted to and approved in writing by the Local Planning Authority. The scheme of clearance as approved shall be implemented prior to the commencement of development, including any land clearance.

Reason:

To ensure protection for protected species, in accordance with Policy ENV16 of the Unitary Development Plan.

16. A scheme of ecological enhancement shall be submitted with the Reserved Matters application in connection with the on-site sustainable surface water drainage, such as the provision of a 'wet basin'. The scheme shall include a timeframe of works and details of maintenance. The development shall be in accordance with the agreed scheme.

Reason:

To ensure protection for protected species and ecological enhancement, in accordance with Policy ENV 16 of the Unitary Development Plan.

17. The Reserved Matters submission to follow this Outline approval shall be accompanied by an Ecology and Landscape Management Plan. The agreed Ecological and Landscape Management Plan shall be implemented in full accordance with its recommendations and details in perpetuity, unless otherwise agreed in writing by the Local Planning Authority.

Reason:

To ensure protection for protected species and ecological enhancement, in accordance with Policy ENV 16 of the Unitary Development Plan.

18. The Reserved Matters application, to follow this approved Outline approval, should be supported by a lighting strategy for the development, which should include reference to ecology matters such as safeguarding light sensitive species. The development shall thereafter be in accordance with the approved lighting strategy.

Reason:

To ensure a suitable lighting strategy and to safeguard protected species, in accordance with Policies ENV27 and ENV16 of the Unitary Development Plan.

19. The development shall be in full accordance with 'Invasive Vegetation Report' dated December 2012 and submitted with application 2012/00933/OUT, relating primarily to Himalayan Knotweed at the site, unless otherwise agreed in writing by the Local Planning Authority. This should be implemented throughout the preconstruction and construction period.

Reason:

To protect against environmental damage from invasive species, in accordance with Policy ENV29 of the Unitary Development Plan.

20. The proposed landscaping scheme shall include details of an ecological enhancement of the site, and any enhancements thereby identified shall be implemented in the first planting season following the completion of the development unless otherwise agreed with the Local Planning Authority.

Reason:

To increase the biodiversity value of the site and to meet the requirements of Policy ENV16 of the Unitary Development Plan.

21. Prior to the commencement of development a scheme for the provision and management of a 5 metre wide buffer zone along the watercourse within the site shall be submitted to and agreed in writing by the Local Planning Authority. Thereafter the development shall be carried out in accordance with the approved scheme, with the buffer zone being kept free from all development, including lighting, domestic gardens and formal landscaping.

Reason:

To prevent an adverse impact to wildlife and biodiversity, in accordance with Policies ENV27, ENV29 and ENV16 of the Unitary Development Plan.

22. Prior to the commencement of development, a method statement detailing the protective measures that are to be implemented to prevent pollution of the watercourse within the site shall be submitted to and agreed in writing by the Local Planning Authority. The approved method statement shall be fully implemented throughout the course of the construction period of the development hereby approved, unless otherwise approved in writing by the local planning

Reason:

To prevent pollution of the watercourse through the course of construction, in accordance with Policy ENV 29 of the Unitary Development Plan.

23. A scheme providing for the fencing of the trees to be retained and showing details of any excavations, site works, trenches, channels, pipes, services and areas of deposit of soil or waste or areas for storage shall be submitted to and agreed in writing with the Local Planning Authority prior to the commencement of development. No development shall be commenced on site until the approved protection scheme has been implemented and the scheme of tree protection shall be so retained on site for the duration of development works.

Reason:

In order to avoid damage to trees on or adjoining the site which are of amenity value to the area and to ensure compliance with Policies ENV11 and ENV27 of the Unitary Development Plan.

24. A landscaping scheme shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development, which shall include indications of all existing trees and hedgerows on the land and details of any to be retained.

Reason:

To safeguard local visual amenities, and to ensure compliance with the terms of Policy ENV27 of the Unitary Development Plan.

25. All planting, seeding or turfing comprised in the approved details of landscaping shall be carried out in the first planting and seeding seasons following the occupation of the buildings or the completion of the development, whichever is the sooner; and any trees or plants which within a period of five years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent to any variation.

To ensure satisfactory maintenance of the landscaped area to ensure compliance with Policies ENV11 and ENV27 of the Unitary Development Plan.

26. No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority a Construction Environmental Management Plan (CEMP). The CEMP shall include details of how noise, lighting, dust and other airborne pollutants, vibration, smoke, and odour from construction work will be controlled and mitigated, including details of wheel washing. The CEMP will utilise the Considerate Constructors Scheme (www.considerateconstructorsscheme.org.uk). The CEMP will include a system for the management of complaints from local residents which will incorporate a reporting system. The construction of the Development shall be completed in accordance with the approved Plan unless otherwise agreed in writing with the Local Planning Authority.

Reason:

To ensure that the construction of the development is undertaken in a neighbourly manner and in the interests of the protection of amenity and the environment and to ensure compliance with the terms of Policy ENV27 of the Unitary Development Plan.

27. Notwithstanding the submitted drawings and prior to the commencement of any works on site, full engineering drawings/details of the proposed access and associated works, turning areas, new footway, plus any new street lighting, signage and drainage details shall be submitted to and approved in writing by the Local Planning Authority.

Reason:

To ensure the provision on safe access into site to serve the development in the interests of highway safety, and to ensure compliance with the terms of Policy ENV27 of the Unitary Development Plan.

28. The development hereby approved shall not be brought into beneficial use until the approved access has been constructed in full accordance with the engineers details as required by Condition No. 27 and the access shall thereafter be so retained to serve the development hereby approved.

Reason:

In the interests of highway safety and to ensure a satisfactory form of access to serve the development, and to ensure compliance with the terms of Policy ENV27 of the Unitary Development Plan.

29. Prior to the first beneficial occupation of the development hereby approved, a full Travel Plan shall be prepared to include a package of measures tailored to the needs of the site and its future users, which aims to widen travel choices by all modes of transport, encourage sustainable transport and cut unnecessary car use. The Travel Plan shall thereafter be implemented in accordance with the approved details.

Reason:

To ensure the development accords with sustainability principles and that site is accessible by a range of modes of transport in accordance with UDP Policies 2, 8 and ENV 27 (Design of New Developments).

- 30. The dwellings hereby permitted shall not be brought into beneficial use until such time as:
 - (1) The applicant/developer enter into a highway agreement under S278 of the Highways Act 1980 with the Council to provide the proposed access junction (including any required Traffic Regulation Orders), in accordance with a scheme which shall first have been submitted to and agreed in writing by the Local Highway Authority; and
 - (2) The requirements of the proposed scheme and any associated requirements of any amended or new Traffic Regulation Order have been implemented.

Reason:

In the interests of highway safety and to ensure compliance with the terms of Policies ENV27 of the Unitary Development Plan.

31. The reserved matters application(s) shall have full regard to the guidance and advice as set out in Manual for Streets and Secure by Design unless otherwise agreed in writing by the Local Planning Authority.

Reason:

To ensure that the reserved matters application is submitted in accordance with good practice and to ensure compliance with Policies ENV27 and HOUS8 of the Unitary Development Plan.

Reason for Granting Planning Permission

The decision to recommend planning permission has been taken in accordance with Section 38 of The Planning and Compulsory Purchase Act 2004, which requires that, in determining a planning application the determination must be in accordance with the Development Plan unless material considerations indicate otherwise. The Development Plan comprises the Vale of Glamorgan Adopted Unitary Development Plan 1996-2011.

Having regard to Policies ENV1 (Development in the Countryside), ENV2 (Agricultural Land), ENV4 (Special Landscape Areas), ENV10 (Conservation of the Countryside), ENV11 (Protection of Landscape Features), ENV18 (Archaeological Field Evaluation), ENV19 (Preservation of Archaeological Remains) ENV27 (Design of New Developments), ENV28 (Access for Disabled People), ENV29 (Protection of Environmental Quality), HOUS 2 (Additional Residential Development), HOUS3 (Dwellings in the Countryside), HOUS8 (Residential Development Criteria), HOUS12 (Affordable Housing), ENV16 (Protected Species), TRAN9 (Cycling Development), REC 3 (Provision of Public Open Space for New Developments), REC 6 (Children's Play Facilities), REC 12 (Public Rights of Way and Recreational Routes) and TRAN10 (Parking) of the Vale of Glamorgan Adopted Unitary Development Plan 1996-2011, the Supplementary Planning Guidance 'Amenity Standards' and 'Planning Obligations', Planning Policy Wales (Edition 5, 2012) and Technical Advice Notes 1- Joint Housing Land Availability Studies, 2-Planning and Affordable Housing, 5-Nature Conservation and Planning, 10 – Tree Preservation Orders, 12-Design, 16-Sport, Recreation and Open Space, 18-Transport, and 22-Sustainable Buildings; it is considered that the proposals are acceptable, based on the material considerations set out within the report, by reason of its sustainable location and the requirement to address the need for new residential development and affordable housing within the Vale of Glamorgan. The proposals are also acceptable by virtue of the appropriate layout and scale of the proposed development, its suitable means of access, and with no significant impact to the character of the Special Landscape Area and countryside. The proposals therefore comply with the relevant national planning policies and supplementary planning guidance.

NOTE:

- 1. Before work is commenced the applicant must ensure that, where necessary, the appropriate Building Regulation consent has been obtained.
- 2. This consent does not convey any authorisation that may be required to gain access onto land not within your ownership or control.
- 3. The attention of the applicant is drawn to the fact that a public sewer runs through the site and may be affected by the development.
- 4. You are advised that there are species protected under the Wildlife and Countryside Act, 1981 within the site and thus account must be

taken of protecting their habitats in any detailed plans. For specific advice it would be advisable to contact: The Natural Resources Wales, Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP General enquiries: telephone 0300 065 3000 (Mon-Fri, 8am - 6pm).

- 5. Please note that a legal agreement/planning obligation has been entered into in respect of the site referred to in this planning consent. Should you require clarification of any particular aspect of the legal agreement/planning obligation please do not hesitate to contact the Local Planning Authority.
- 6. Where the work involves the creation of, or alteration to, an access to a highway the applicant must ensure that all works comply with the appropriate standards of the Council as Highway Authority. For details of the relevant standards contact the Visible Services Division, The Vale of Glamorgan Council, The Alps, Wenvoe, Nr. Cardiff. CF5 6AA. Telephone 02920 673051.
- 7. The proposed development site is crossed by a public sewer. No development (including the raising or lowering of ground levels) will be permitted within the safety zone which is measured either side of the centre line. For details of the safety zone please contact Dwr Cymru Welsh Water's Network Development Consultants on 0800 9172652.
- 8. Dwr Cymru Welsh Water (DCWW) have advised that some public sewers and lateral drains may not be recorded on their maps of public sewers because they were originally privately owned and were transferred into public ownership by nature of the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011. The presence of such assets may affect the proposal. You should therefore contact the DCWW Operations Contact Centre on 0800 085 3968 to establish the location and status of the sewer. Please note that under the Water Industry Act 1991 DCWW has rights of access to its apparatus at all times.
- 9. Any works to trees protected under Tree Preservation Orders would require separate Tree Preservation Order consents.

10. The attention of the applicant is brought to the fact that a public right of way is affected by the proposal. The grant of planning permission does not entitle one to obstruct, stop or divert a public right of way. Development, in so far as it affects a right of way, must not be commenced until the necessary legal procedures have been completed and confirmed for the diversion or extinguishment of the right of way.

Please note that this consent is specific to the plans and particulars approved as part of the application. Any departure from the approved plans will constitute unauthorised development and may be liable to enforcement action. You (or any subsequent developer) should advise the Council of any actual or proposed variations from the approved plans immediately so that you can be advised how to best resolve the matter.

In addition, any conditions that the Council has imposed on this consent will be listed above and should be read carefully. It is your (or any subsequent developers) responsibility to ensure that the terms of all conditions are met in full at the appropriate time (as outlined in the specific condition).

The commencement of development without firstly meeting in full the terms of any conditions that require the submission of details prior to the commencement of development will constitute unauthorised development. This will necessitate the submission of a further application to retain the unauthorised development and may render you liable to formal enforcement action.

Failure on the part of the developer to observe the requirements of any other conditions could result in the Council pursuing formal enforcement action in the form of a Breach of Condition Notice.

Dated: 11 April 2014

1 & Three

Director of Development Services

IT IS IMPORTANT THAT YOU SHOULD READ THE NOTES ATTACHED TO THIS FORM.

THESE NOTES SHOULD ALWAYS BE REPRODUCED WITH COPIES OF THE DECISION NOTICE

<u>NOTES</u>

Notification to be sent to an applicant when a Local Planning Authority refuse planning permission or grant it subject to conditions.

Appeals to the Welsh Government:

- If you are aggrieved by the decision of the Local Planning Authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Welsh Government under Section 78 of the Town and Country Planning Act 1990 (as amended).
- If you want to appeal, then you must do so within six months of the date of this notice, using a form which you can get from The Planning Inspectorate, Crown Buildings, Cathays Park, Cardiff CF10 3NQ.
- The Welsh Government can allow a longer period of an appeal, but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Welsh Government need not consider an appeal if it seems that the Local Planning Authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any Development Order and to any directions given under a Development Order.
- In practice, the Welsh Government does not refuse to consider appeals solely because the Local Planning Authority based their decision on a direction given by them.

Purchase Notices:

- If either the Local Planning Authority or the Welsh Government refuses permission to develop land or grants it subject to conditions, the owner may claim that he/she can neither put the land to a reasonable beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.
- In these circumstances, the owner may serve a Purchase Notice on the Council. This notice will require the Council to purchase his/her interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990 (as amended).

PLEASE NOTE: THIS NOTICE RELATES ONLY TO A PLANNING DECISION AND DOES NOT RELATE TO OTHER LEGISLATION INCLUDING ANY LEGISLATION UNDER:

BUILDING REGULATIONS LISTED BUILDING LEGISLATION HIGHWAY LEGISLATION

IF PLANNING CONSENT HAS BEEN GRANTED IT IS ADVISABLE TO ESTABLISH WHETHER ANY OTHER FORM OF CONSENT IS REQUIRED AND TO OBTAIN SUCH CONSENT BEFORE COMMENCING DEVELOPMENT

Please quote the application number in all correspondence.

Appendix EDP 2 Planting Plan Sheets 1-3 (Catherine Etchell Associates Dwg. Nos. 876.A dated April 2014)

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 Tree locations are subject to confirmation of $\mathbf{\Omega}$ engineering and foundation details. Foundations shall comply with guidelines set by structural Ο current NHBC Standards 'Building near Trees' and Any proposed substitutions, whether species, cultivar, pot size or other specification, must be depth of 150mm and scarify sides. Pits to be Any significant layout changes necessitating revised details (such as new retaining walls casting fertilizer (see below). shade on planting beds) should be reported to the landscape architect; All Nursery Stock to comply with BS3936 Part 1:1992 and all subsequent amendments; All Landscape operations to comply with BS4428:1989 and all subsequent amendments

• All planting beds and pits except Hedera areas to receive compost during cultivations at a rate of 1m3 to 20m2 and slow release fertiliser (e.g. Ficote 140) at rate of 25g/plant and 200g/tree; beds to be thoroughly watered following planting and before receiving 75mm (settled) depth bark mulch; watering to continue as required throughout back gardens to be stone picked and left as bare (2012), Figure 5 first growing season following planting; and soil; and

existing canopies, the density of planting is to be centreline of 0.8m width bed. substantially reduced in order to damage to tree roots.

specificatio planting

Spacing ID

4/m2 Aa

71-CsK

7/11/2	710	00		
TREE	BaF-10/12	5	Betula albosinensis 'Fascination'	10-12cm
TREE	BaF-16/18	5	Betula albosinensis 'Fascination'	16-18cm
TREE	BaF-20/25	6	Betula albosinensis 'Fascination'	20-25cm
4/m2	BOR	93	Berberis thunbergii 'Orange Rocket'	30-40, 3L
TREE	BuJ-MS	2	Betula utilis 'Jacquemontii'	3-5no. multistem, 5.0-6.0m
2/m2	Ca	966	Corylus avellana	1+2, 60–80cm
TREE	CaG	1	Cedrus atlantic 'Glauca'	3.5m
4/m2	CAP	120	Choisya 'Aztec Pearl'	30-40cm, 3L
4/m2	CaSV	116	Cornus alba 'Sibirica Variegata'	30-40cm, 3L
5/linm	Cb-H	2088	Carpinus betulus	60-80cm, BR
4/m2	CBM	30	Ceanothus 'Blue Mound'	30-40cm, 3L
3/m2	CHG	74	Cornus sericea 'Hedgerow's Gold'	30-40cm, 3L
7/linm	Cm-BR	214	-	1+2, 60-80cm
4/m2	CMF	57	Cornus sanguinea 'Midwinter Fire'	30-40cm, 3L
4/m2	CMF-10	34	Cornus sanguinea 'Midwinter Fire'	60-80cm, 10L
TREE	Cpr	35	Crataegus prunifolia	12-14cm
2/m2	Cs-BR		Cornus sanguinea	60-90cm, BR
3/m2	CsK		Cornus stolonifera 'Kelseyi'	30-40cm, 3L
4/m2	Ctr	27	Ceanothus thyrsiflorus 'Repens'	30-40cm, 3L
3/m2	Схр		Cistus x pulverulentus 'Sunset'	40-60cm, 5L
4/linm	EeL	318	Elaeagnus ebbingei 'Limelight'	30-40cm, 3L
4/m2	EGB	73	Escallonia exoniensis 'Gold Brian'	30-40cm, 3L
4/m2	EjC	34		30-40cm, 3L
SPEC	Fj	24	Fatsia japonica	60-80cm, 10L
4/m2	GP	38	Geranium 'Patricia'	2L
4/m2	HAG		Hebe 'Autumn Glory'	20-30cm, 3L
4/m2	HM		Hebe 'Marjorie'	30-40cm, 3L
4/m2	HMB		Hebe 'Midsummer Beauty'	30-40cm, 3L
4/m2	Ho		Helleborus orientalis	20-30cm, 3L
4/m2	Hq	34	Hydrangea quercifolia	30-40cm, 3L
4/m2 1/m2	la		llex aquifolium	60-80cm, 3L
1/1112	la	100		00-000III, JL
4/m2	LaA	58	Lavandula angustifolia 'Alba'	40-50cm, 7.5L
1/m2	Lart		Lonicera periclymenum	60-90cm, 3L
TREE	MR	26	Malus 'Rudolf'	12-14cm
2.5/linm or 4/m2	PfR	387	Photinia x fraseri 'Red Robin'	40-60, 3L
4/m2	PG		Potentilla 'Goldfinger'	20-30cm, 3L
TREE	PIM	17	Prunus laurocerasus 'Magnoliifolia'	12-14cm
4/m2	PS	125	Phormium 'Surfer'	40-60cm, 3L
4/m2 1/m2			Prunus spinosa	1+1, 60-80cm
4/m2	Psp PSQ	24	•	40-50cm, 3L
CLIMBER	Pt	24	Pittosporum tenuifolium 'Silver Queen' Parthenocissus tricuspidata 'Veitchii'	90–120cm
4/m2	PtSun	42	Phormium tenax 'Sundowner'	3L, 40-60cm
TREE	Qr	20	Quercus robur	18–20cm RB
4/m2	RGW	22 102	Rosa 'Golden Wings'	30-40cm, 3L
2/m2	Ri		Rubus idaeus	60-80cm, BR
4/m2	RMM	9	Rosa White 'Meidiland' var. 'Meicoublan'	30-40cm, 3L
2/m2	Rn	138	Ribes nigrum 'Ben Sarek'	60-80cm, BR
4/m2	RRH		Rosa 'Roseraie de l'Haÿ'	30-40, 3L
4/m2	RSS	23	Rosmarinus officinalis 'Severn Sea'	30-40cm, 3L
WHIP	SaBR	10	Sorbus aucuparia	175-200, 1+2
TREE	SaM	6	Sorbus aria 'Majestica'	12-14cm
WHIP	Sc	231	Salix caprea	175-200mm
4/m2	SnS	36	Spiraea nipponica 'Snow Mound'	30-40, 3L
4/m2	Vg	14	Viburnum globosum 'Jermyn's Globe'	30-40cm, 3L
2/m2	Vt	38	Viburnum tinus	30-40, 3L
CLIMBER	WfM	2	Wisteria floribunda 'Macrobotrys'	2.5-3.0m, 20L

No. Latin Name

55 Arundinaria auricoma

Scheduled Size

30-40cm, 3L

 All rootballed trees to be anchored underground with Greenleaf Rootball Fixing System and planted
 Protection of existing trees and hedges to be retained
 Protection of existing trees and hedges to be
 All planting and graves with Greenleaf 'Root Rain Urban' watering pipes, engineering consultants, and shall accord with the fitted according to manufacturer's instructions;

tree or shrubs on buildings and their foundations. 1m depth. In sloping ground, maintain horizontal bases and vertical sides with no less than minimum deposited within the fenced areas; depth throughout. Break up bottoms of pits to a approved by landscape architect prior to planting; backfilled with a previously prepared mixture of 90% topsoil, together with 10% peat free planting compost in addition to organic slow release

> Bareroot/containerised trees to be staked with short double stakes a maximum of one quarter the height of the tree above ground, and fixed with Greenleaf biodegradable hessian ties;

 Trees in grass to be planted in 1.0m diameter mulched bed which is to be retained weed free for the first three years following planting;

 All avenue trees to be selected to be of similar size, form and habit;

 Grass areas in front gardens and other areas to be turfed; grass areas under trees to be seeded;

• Where native planting is proposed underneath • Garden hedges to be planted in single rows along

shall be erected around each tree or group at a depth of not less than 150mm (grass areas), greater). No soil, spoil or other material shall be and maintained appropriate to season;

• Underground services to be routed to avoid in between back of planting beds and house walls; fenced areas;

 No burning to take place within 10m of the furthest extent of the canopy of trees to be retained on site or on land adjoining;

 The fence shall be kept in constant repair throughout the development work;

 The protective fencing shall be retained in position until completion of the development, when it shall be removed only with the written consent of the planning authority;

• The fence shall be at least 2.4 metres high, comprising of a scaffolding framework, as in 8.2.2 of BS 5837 (2012), supporting a minimum of 200mm exterior grade ply or other approved robust man-made boards as shown in BS 5837

• All planting and grass areas to be cultivated and • Prior to construction on site, protective fencing spread with a good quality topsoil to BS 3822 to a minimum radius from the trunk of the tree of the 400mm (planting beds); topsoil allowed to settle shall accommodate immediate and future impact of • Tree pits to be excavated to minimum 1m x 1m x canopy extent plus 10% (whichever is the prior to planting or turfing; turf laid to all frontages

• 300mm slabbed maintenance strip to be installed

• Rear gardens to be cultivated/stone picked and left for planting by occupier, except where shown;

 All landscape works to be completed prior to occupation of each dwelling; The landscape contractor to make him/herself

aware of any underground services prior to planting.

legend

proposed ornamental shrub beds

proposed garden hedge (800mm wide bed)

proposed native hedge (1500mm wide bed)

proposed turf

proposed specimen & climbing plants

existing trees & vegetation retained



wildflower grassland: Emorsgate EM1 General Purpose Meadow sown at 4g/m2 managed by differentia proposed native shrub mix (with ornamental Cornus and blackcurrant/raspberry adjacent paths)

existing woodland floor retained, with additional bulb and plug planting (refer to notes)

tree protection fencing (refer to notes)

reptile refugia built from rocks, stones and soil (refer to Ecology Report)

grassy mounds over buried rubble and logs (refer to Ecology Report)

BR or CG 110L 5 breaks in lower third 3 breaks in lower third double staggered row Bushy triple staggered row Bushy Bushy RB 1+2 Bushy Bushy 7 breaks in lower third, bushy 3/4 breaks in lower third, bushy 3 breaks in lower third 5 breaks in lower third 3 breaks in lower third Bushy plant Bushy, 3 breaks in lower third

Minimum of 3 stems

3 breaks in lower third

Rootballed

Rootballed

Rootballed

3 breaks in lower third 3 breaks in lower third 3 breaks in lower third 2/3 breaks in lower third

5 breaks in lower third, bushy min 2 breaks, cane removed on planting Similar size and habit 5 breaks in lower third Bushy, 3 breaks in lower third rootballed Minimum of 5 spears BR, 3 breaks 3 breaks in first third caned, min 2 breaks min of 5 spears

3 breaks in lower third bushy, 5 breaks 3 breaks in lower third bushy, 5 breaks 5 breaks in lower third 3 breaks in lower third 5 breaks

BR

Bushy, 5 breaks in lower third 3 breaks in lower third 3 breaks in lower third, bushy Pat Pot 6-8cm Half std

Revision A: Amendments to planting



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drawing title

Planting Plan Sheet 1 of 3

scale • 1:250 at A0	
date • April 2014	
drawn • CE	
drawing number • 876.01	
revision • A	

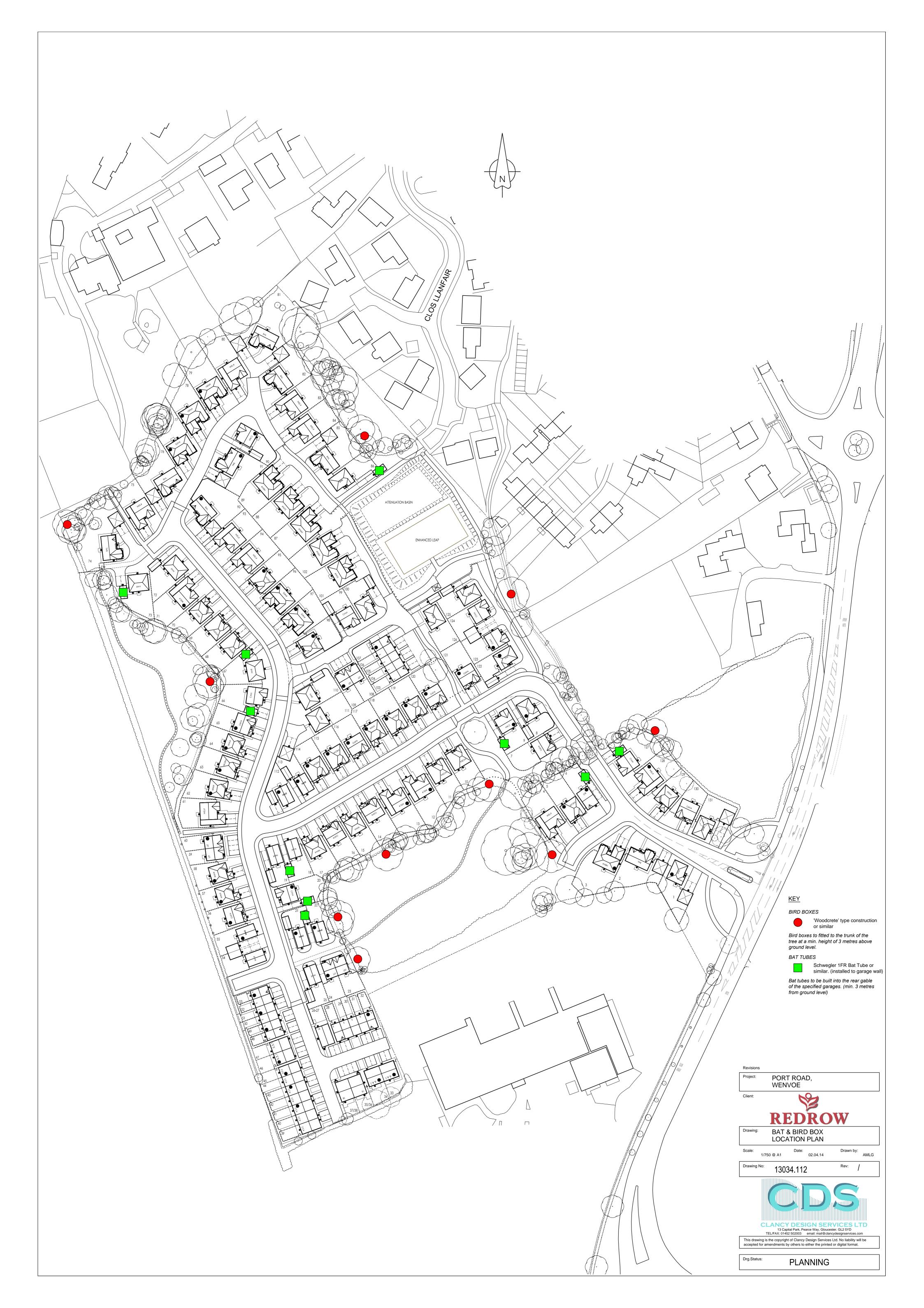


Revision A: Amendments to planting



Appendix EDP 3 Bat and Bird Box Location Plan (Clancy Design Services Dwg. Nos. 13034.112 dated 02.04.14)

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Appendix EDP 4 Woodland Management Scheme

1 Introduction

- 1.1 This Woodland Management Scheme (WMS) has been prepared by The Environmental Dimension Partnership (EDP) on behalf of Redrow Homes (South Wales), hereafter referred to as 'the Developer'.
- 1.2 Outline planning consent for the residential development of land to the west of Port Road, Wenvoe (Reference 2013/00884/OUT), has recently been granted by Vale of Glamorgan Council for the development of up to 140 dwellings with associated parking, access and public open space.
- 1.3 Condition 13 attached to this consent requires for a WMS to be submitted to Vale of Glamorgan Council for prior approval, given that all woodland blocks on site are to be retained and incorporated within the overall design layout proposed for the site.
- 1.1 The WMS draws upon the findings of previous ecological appraisals undertaken of the site submitted as part of the original outline planning application (EDP report reference C_EDP1637_03 dated August 2012; Aspect Ecology report reference ECO2192.EcoAppCons&Opps.vf dated June 2010), and includes the following:
 - **Part 2**: Sets out the scope and aims of the management strategy;
 - **Part 3**: Describes the baseline conditions on the site, particularly the key features of existing ecological and woodland interest;
 - **Part 4**: A description of the management proposals; and
 - **Part 5**: details the requirements for monitoring and review of such proposals.

2 Scope and Aims of the WMS

Scope

- 2.1 This WMS will extend in perpetuity, requiring subsequent monitoring and review of all operations every five years for a period of no less than twenty five years.
- 2.2 The general scope of this WMS includes the following:
 - During the construction phase, the scheme seeks to protect and maintain existing woodland features of ecological and landscape value, which are to be retained within the scheme;

- The scheme will also set out the principles informing the replacement planting and other management proposals for post-development maintenance and the establishment of an enhanced woodland character; and
- The long-term management and maintenance of the woodland post-adoption seeks to ensure that the woodland value is sustained and enhanced, such that all benefits to ecological biodiversity are delivered successfully throughout the lifetime of the scheme.

Aims

- 2.3 The overall aims of this WMS are:
 - To ensure that an up-to-date and comprehensive inventory of the woodland is maintained over time;
 - To ensure the continuance of the contribution that the mature tree stock makes to the qualities of the site by setting out principles upon which the existing tree stock can be managed and its safe lifespan optimised; and
 - To ensure appropriate management of the woodland in the long-term in order to maximise (albeit locally) the environmental benefits of the scheme for local wildlife.

3 Existing Ecological Interest

- 3.1 As detailed within previous ecological appraisals of the site, four woodland blocks W1-W4 (as illustrated within Landscape Planting Plan Sheets 1-3 prepared by Catherine Etchell Associates (Dwg. Nos. 87602 dated April 2014)), extend into the site from its peripheries, supporting broadleaved woodland. Whilst varying in structure and species diversity, only a limited diversity of widespread and common species are supported, with a number of non-native species also present and likely encroaching from adjacent properties and garden centre.
- 3.2 Comprising predominantly semi-mature stands, these woodland blocks are likely to be secondary in nature, although some notable ground flora including wood anemone (*Anemone nemorosa*), lesser celandine (*Ranunculus ficaria*), lords-and-ladies (*Arum maculatum*), primrose (*Primula vulgaris*), and dogs mercury (*Merurialis perennis*) were recorded during the 2010 and 2012 visits.
- 3.3 Woodland of greater value exists within the wider landscape surrounding the site however, including ancient woodland blocks such as: Wenvoe Wood situated to the immediate north and north west of the development boundary; Goldsland Wood located approximately 850m to the west; Barry Woodlands located approximately 950m to the south; and Park Wood located approximately 1.5km to the east.

3.4 A brief description of the woodland blocks present on site, as extracted from the previous ecological appraisal reports submitted in relation to the previous outline planning application, is provided below:

Woodland Block W1

3.5 Woodland W1 is situated in the south of the site, dominated by a substantial canopy of tall trees including hybrid black poplar (Populus x canadensis), cherry (*Prunus* spp.) and lime (*Tilia europaea*). The understorey was recorded to be relatively open in nature with abundant young colonising woody species including sycamore (*Acer pseudoplatanus*), elder (*Sambucus nigra*), Norway maple (*Acer platanoides*), occasional holly (*llex aquifolium*) and non-native cotoneaster (*Cotoneaster spp*.). Similarly to W3, the ground flora was recorded to be dominated by ivy (*Hedera helix*), with other occasional species noted including lvy-leaved Speedwell (*Veronica hederifolia*), lords-and-ladies and lesser celandine. In addition, a potential stand of wild pear (*Pyrus pyraster*) is supported along its southern edge adjacent to the neighbouring garden centre.

Woodland Block W2

3.6 Woodland W2 was recorded to be dominated by ash (*Fraxinus excelsior*), which are generally semi-mature in age, forming a tall continuous canopy such that little light penetrates the woodland floor. The understorey was recorded to be of moderate density, particularly in comparison with the other woodland blocks, with abundant cotoneaster and cherry laurel (*Prunus laurocerasus*), and occasional native species including hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*) and honeysuckle (*Lonicera periclymenum*). Much of the ground flora was dominated by ivy, thouhg with occasional patches of dog's mercury and lord-and-ladies. Abundant rubbish had also been distributed across the woodland floor including old car parts, trellis, fencing and general waste.

Woodland Block W3

3.7 Woodland W3 forms a small strip of woodland along the eastern boundary which appears semi-mature to mature in nature with sycamore dominating the canopy level. The understorey was recorded to be dominated by a number of planted non-native species including cherry laurel, conifers and dogwood cultivars (*Cornus* spp.), with occasional native species such as beech (*Fagus sylvatica*), hawthorn and yew (*Taxus baccata*). The ground flora was noted to be limited due to dense over-shading, with an abundance of ivy, frequent lords-and-ladies and encroaching balsam (*Impatiens* spp.).

Woodland Block W4

3.8 Woodland W4 was recorded to be generally young in nature, dominated by self-set sycamore and ash with a small number of mature hybrid black poplar present. The woodland supports a relatively sparse understorey of regenerating sycamore and hawthorn, with invading non-natives such as cotoneaster species. The ground flora

supports a richer diversity in comparison to W3, with some continuous swathes of dog's mercury along with patches of wood anemone, albeit an abundance of balsam was noted to be encroaching throughout the woodland.

4 Management Proposals

- 4.1 The following section sets out the proposed habitat protection, enhancement and management measures which it is proposed are implemented during and after construction of the proposed development. These should be read in conjunction with the Ecological Construction Method Statement (ECMS) & Ecology and Landscape Management Plan (ELMP), to which this WMS is appended.
- 4.2 The proposals contained within this WMS will require subsequent monitoring and review of all operations at five yearly intervals.

Responsibilities

- 4.3 The responsibility for carrying out the functions of this WMS will vary throughout the duration of the management period as follows:
 - During the construction phase the Developer will be responsible for delivering the actions required; and
 - Following completion, the responsibilities for delivering the on-going commitments within the strategy will fall to either a private management company or to the Vale of Glamorgan Council/Coed Cymru upon adoption.

Management Actions

Woodland Protection

- 4.4 All retained woodland blocks are to be protected during the construction period by protective fencing securely installed in accordance with BS5837: 2005 '*Trees in Relation to Construction*'. Such fencing will be adequately maintained along all woodland boundaries.
- 4.5 No works (other than planting), including the storage of soil, spoil or other materials within the fenced areas, will be carried out adjacent to areas of protective fencing/areas marked for protection. The digging of trenches and pits adjacent to areas of protective fencing for new tree and scrub planting will be carried out in accordance with best practice. Underground services are to be routed to avoid fenced areas.

Vegetation Removal

- 4.6 Consideration should be given to protected and notable species potentially present within woodland blocks W1-W4, including roosting bats, reptiles and breeding birds, with sensitive working methodologies employed where necessary, as detailed within the ECMS & ELMP to which this WMS is appended.
- 4.7 All specimens of non-native cherry laurel and cotoneaster will be removed from within all woodland blocks. Selective removal of sycamore and bramble (*Rubus fructicosus agg.*) scrub will also be undertaken where appropriate. Stands of hazel, willow and other coppice-tolerant species should be subject to coppicing regimes on a 6-10 year rotation or where appropriate to species.
- 4.8 Removal of above-ground woody vegetation will be undertaken using hand-held machinery and in a sensitive manner between November to March inclusive so as to avoid the main bird breeding and bat active seasons. Herbicide will be applied only where considered necessary to inhibit re-growth of non-native and invasive species.
- 4.9 Should below-ground removal of tree stumps within woodland blocks W1 W4 be necessary, then such works will be undertaken between April and September inclusive when reptiles are active. Likewise, fly-tipped materials from the woodland interiors will also be cleared during this period.
- 4.10 All arisings will be removed from site and appropriately disposed of.

New Woodland Planting

4.11 The diversity of the woodland understorey and canopy will be enhanced through the planting of a diverse mix of native trees and shrubs of local provenance over time, to include the following species:

Common name	Scientific name	Shrubs	Trees
English Oak	Quercus robur		•
Hawthorn	Crataegus monogyna	•	
Hazel	Corylus avellana	•	
Spindle	Euonymous europaeus	•	
Ash	Fraxinus excelsior		•
Privet	Ligustrum vulgare	•	
Honeysuckle	Lonicera periclymenum	•	
Blackthorn	Prunus spinosa	•	
Wayfaring tree	Viburnam lantana	•	
Guelder Rose	Viburnum opulus	•	
Elder	Sambucus nigra	•	
Dogwood	Cornus sanguinea	•	

 Table EDP 4.1: Native Species Planting Recommended

- 4.12 Supplementation of the ground flora should be avoided where possible to enable the existing assemblage to establish. However should supplementation be required to speed up such establishment, then the following species are recommended: lords-and-ladies, bluebell (*Hyacinthoides non-scripta*), primrose (*Primula vulgaris*), hart's tongue fern (*Asplenium scolopendrium*), wood anemone and wood sorrel (*Oxalis acetosella*).
- 4.13 Planting material will comprise a mixture of native species that will be handled in accordance with the Horticulture Trade Association guidelines.

Access

4.14 Access to woodland is to be restricted to a single entry and exit point and designated route per woodland block so as to limit damage through excessive trampling. Such routes are to be selected during late spring to ensure sensitive ground flora is avoided.

Establishment and Maintenance

- 4.15 To ensure the long-term viability of all retained mature trees on site, a regular inspection of all retained mature trees should be undertaken every 18 months by an Arboriculture Association (AA) approved arboriculturalist contractor or professional arboriculturalist, with all recommendations implemented in full within three months of initial inspection.
- 4.16 Any maintenance pruning required, particularly in relation to tree lines, should be undertaken in accordance with good horticultural and arboricultural practice with thinning, trimming and shaping of specimens undertaken as appropriate to species, location, season, and stage of growth. All arisings from any vegetation clearance will be taken away from the vicinity of the development footprint no later than the day after vegetation clearance.
- 4.17 Watering will be undertaken as necessary by the developer to ensure the establishment and thriving of all planted areas. Watering will be to the full depth of the topsoil. If supply is restricted by emergency legislation watering will not be carried out unless instructed to do so.
- 4.18 All areas where plants or trees have failed to thrive (through death, damage or disease) will be identified and plants will be removed and replaced with equivalent species to match the size of adjacent nearby plants in the next appropriate planting season as frequent as necessary. The advice of the project landscape architect should be sought wherever possible. Any variation of this will only occur upon consent by the Local Planning authority.
- 4.19 The condition of all tree stakes, ties and guards will be checked and all broken items will be replaced and items regularly adjusted or removed to ensure healthy plant growth for up to five years post-adoption.

- 4.20 All plants will be pruned to promote healthy growth and natural shape, and any dead, dying or diseased wood and suckers will be removed. Overhanging branches will be pruned to ensure that growth is prevented from encroaching into the site. All pruning will be undertaken in accordance with BS 3998. Pruning will be undertaken biannually or as appropriate to each species between September and February inclusive to avoid the main bird breeding season. Such pruning should occur for up to five years postadoption.
- 4.21 Bird boxes of 'woodcrete' construction or similar will be installed on appropriate mature trees (as identified within the ECMS & ELMP to which this WMS is appended) so as to maintain and enhance bird nesting opportunities. Such features will be inspected and maintained on an annual basis by a suitably qualified ecologist for up to five years post-adoption. Damaged boxes will be replaced where necessary.
- 4.22 A summary of the short-term (Years 1-5) work, maintenance and management programme is provided in **Table EDP 4.2**. Such works are to be reviewed at five-yearly intervals for up to a minimum of twenty five years.

Prescription	Activity		Years				
			2	3	4	5	
1	Mature woodland trees - To ensure the long-term viability		+		+		
	of the retained trees on site, an inspection should be						
	undertaken by an AA approved Arboriculturist contractor or						
	professional Arboriculturist at 18 month intervals.						
2	New tree and shrub planting	+					
3	All areas where plants or trees have failed to thrive (through			+		+	
	death, damage or disease) will be identified and plants will						
	be removed and replaced with equivalent species to match						
	the size of adjacent nearby plants in the next appropriate						
	planting season as frequent as necessary. The advice of the						
	project landscape architect should be sought wherever						
	possible. Any variation of this will only occur upon consent						
	by the Council.						
4	The condition of all tree stakes, ties and guards will be		+		+		
	checked and all broken items will be replaced and items						
	regularly adjusted or removed to ensure healthy plant						
	growth for up to five years post-adoption.						
5	Watering will be undertaken as necessary by the developer	+	+	+	+	+	
	to ensure the establishment and thriving of all planted						
	areas. Watering will be to the full depth of the topsoil. If						
	supply is restricted by emergency legislation watering will						
	not be carried out unless instructed to do so.						
6	Cyclic inspection regime of existing and newly planted tree		+		+		
	stock by the approved contractor.						
7	Formative pruning to new trees to establish an open canopy				+		
	free from damaged and diseased wood.						

 Table EDP 4.2: Work Programme Years 1-5

5 Monitoring and Review of the Management Proposals

5.1 The responsibility for the undertakings set out within this WMS and monitoring thereafter rests with the Developer during the construction period and with the private management company or with Vale of Glamorgan Council/Coed Cymru should such woodland assets be subject to adoption.



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