



Kingsley Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

23rd November 2023

Prepared on Behalf of UK Merthyr Valleys Homes

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

This LEMP has been prepared by:



On behalf of Merthyr Valleys Homes:



Floor 7, Brunel House, 2 Fitzalan Road, Cardiff, CF24 0EB
Tir Collective Limited. Registered Company No.13489264



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Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

Contents

1.0	Introduction.....	6
1.1	Background	6
1.2	Scope	6
1.3	The Site	6
1.4	Development Proposals	7
2.0	Design Concepts	7
2.1	Key design principle	7
2.2	Management objectives	8
2.3	Appraisal	9
2.4	Existing Habitats	9
2.5	Existing Species	10
3.0	Proposed Avoidance, Mitigation and Enhancement Measures.....	11
4.0	Protection and Management Actions	13
5.0	Annual maintenance	21
5.1	Maintenance programme	21
5.2	Annual maintenance schedules	23
6.0	Appendices.....	24
	Appendix 1: Maintenance Specification Q35.....	24
	Appendix 2: Pruning Techniques.....	32
	Appendix 4: Drawings	34

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

1.0 Introduction

1.1 Background

- 1.1.1 Tir Collective has been instructed by Merthyr Valleys Homes to prepare this Landscape and Ecological Management Plan (LEMP). The LEMP relates to the erection of four pairs of semi-detached dwellings with associated engineering and landscaping works at land adjacent to Kingsley terrace, Aberfan, Merthyr Tydfil.
- 1.1.2 The aim of the LEMP is to provide details of the measures proposed to protect ecological receptors (habitats and species) and prescriptions for the creation and management of the landscape proposals at the site, which includes new and retained habitats.
- 1.1.3 This submission has been prepared following recommendations made in Ecological Appraisal and the Landscape Strategy included in Appendix 4 of this report:
- TC22081 **LA.1: Landscape Strategy** (By Tir Collective Landscape Architects)
 - TC22081 **LA.2: Planting Plan** (By Tir Collective Landscape Architects)
 - **Preliminary Ecological Appraisal** (By Soltys Brewster Ecology, July 2022)
 - **Arboricultural Report**, including Tree Survey Data, Tree Constraints Plan, Arboricultural Impact Assessment, Tree Protection Plan and Arboricultural Method Statement (By ArbTS Tree Consultancy Services, July 2022)

1.2 Scope

- 1.2.1 A condition of the planning approval for the redevelopment of the land adjacent to Kingsley Terrace, Aberfan requires that:

Prior to any construction works commencing on site, a Landscape Ecological Management Plan (LEMP) shall be submitted to and approved in writing by the local planning authority. The LEMP shall provide full details of the mitigation measures to be employed to protect the 3m ecological buffer zone and stream during construction, in accordance with the recommendations of the Preliminary Ecological Appraisal. All works shall be completed fully in accordance with the approved details.

Reason – To protect the natural environment and important habitat in accordance with Policies EnW1 and EnW2 of the Merthyr Tydfil County Borough Council Replacement Local Development Plan

1.3 The Site

- 1.3.1 The site is shown in **Figure LA.1 Landscape Strategy** and comprises an area of approximately 0.25 hectares.



- 1.3.2 The site is located to the east of Yr Hen Laethdy (Kingsley Terrace) road in Aberfan, Merthyr Tydfil and is allocated for housing as part of the current Merthyr Tydfil County Borough Council Local Development Plan.
- 1.3.3 The site is a verge and embankment which slopes east towards a small stream. There is grass and scrub on the verge and a line of native trees at the bottom of the embankment on the eastern boundary. The verge is approximately 12-14m in depth and slightly eastward sloping. Beyond the verge, landform drops more steeply across the approximately 12m width embankment, from 160.6m to 157.3m AOD. A footpath cuts across the site in an east-west direction, connecting the terraced streets to either side of the site.
- 1.3.4 The wider landscape comprises the River Taff valley at the settlement of Aberfan. The site is located within the community of Aberfan, in an area occupied by terraced streets that follow the valley landform. The River Taff is located approximately 200m to the east. The valley sides rise steeply to Cefn Merthyr to the east and Mynydd Brynbychan to the west. The major transport route A465 cuts along the valley floor approximately 200m to the west. The Taff Trail long distance walking route also runs along the eastern site boundary and there are several other public rights of way within the locality.

1.4 Development Proposals

- 1.4.1 The proposal will include four pairs of semi-detached dwellings with associated engineering and landscaping works. A retaining wall runs along the eastern plot boundary of the proposed properties. The existing footpath on the site is to be retained and runs between the two pairs of semi-detached dwellings in the south of the site. The proposal will include tree and shrub planting along the footpath, understorey native shrubs to be planted along the retaining wall to fill any gaps within the existing trees following clearance and assist with screening, ground cover ivy at the base of the wall and ornamental planting within SuDS on property frontages, which face west to Kingsley Terrace and are to be divided by proposed hedge.

2.0 Design Concepts

2.1 Key design principle

- 2.1.1 The key design principle which has guided the preparation of the landscape proposals is set out below, and has drawn from the Preliminary Ecological Appraisal,
- 2.1.2 The key design principle to:
- **Protect, enhance and maintain the retained 3m ecological buffer zone and the wildlife it supports whilst providing amenity value within the site for residents.**
- 2.1.3 The management and maintenance objectives have been formulated to achieve and fulfil the overall design principle.
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Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

2.2 Management objectives

- 2.2.1 Management objectives will involve short term and long-term commitments to achieve and fulfil the key design principle, which are identified below. Protection and management of the proposed ecological/landscape elements, including detailed management prescriptions, are provided in **Section 4.0**. Prescriptions for management and maintenance are provided in **Section 5.0**.

Short term objectives (0-5 years):

- **Protect during construction and subsequently manage the retained and proposed trees and vegetation within the 3m Ecological Buffer Zone in a safe environment with the aim of minimising any negative impacts to habitat connectivity and fragmentation for bats, strengthening the wildlife corridor, and providing amenity value**
- Sensitive clearance of existing vegetation to **minimise risks to birds and reptiles**
- Creation of a **reptile hibernaculum** within the 3m Ecological Buffer and monitor its condition
- **Erect bird and bat boxes** and monitor their condition.
- **Management of the spread of invasive species** such as Japanese Knotweed through appropriate treatment or removal and disposal
- **Implement pollution prevention** measures to minimise run-off into ditch/ stream
- Inclusion of fence gaps to provide continued **connectivity for Hedgehog and other small mammals** throughout the development
- Use **native plant species** and those with a known **biodiversity benefit** as specified within **LA.02 Planting Plan** and undertake general management
- **General maintenance** across all areas with the objective to
 - Successfully establish plants with acceptable rates of growth.
 - Remove weeds from the planting areas.
 - Replace dead plants within the structure planting where necessary.
- Provide **sufficient resources** including necessary labour, materials, and machinery.

Long term objectives (5-40 years):

- **Continue ongoing management of the 3m Ecological Buffer Zone with the aim of maintaining habitat connectivity and providing amenity value**



- **Continued monitoring of ecological mitigation features** such as reptile hibernaculum, bat and bird boxes, hedgehog gaps to ensure appropriate functioning
- **Continued monitoring of invasive species and pollution prevention**
- **General maintenance** across all areas with the objective to
 - Successfully establish plants with acceptable rates of growth.
 - Remove weeds from the planting areas.
 - Replace dead plants within the structure planting where necessary.
- Provide **sufficient resources** including necessary labour, materials, and machinery.
- Overall, **maintain and enhance** the ecological value of the site in line with the Environment (Wales) Act 2016, in particular for local Biodiversity Action Plan (BAP) species and habitats.

2.2.2 With all aspects of management, it is essential that the principle of an 'on-going commitment' is established and that sufficient resources are made available to ensure continuity.

2.3 Appraisal

2.3.1 The existing tree and shrub corridor located on the eastern boundary is identified as of value. Within this corridor, some areas of low quality scrub will be required to be removed. The remainder will be retained and protected during the construction and operational phase of the development. The semi-improved grassland will be cleared to facilitate the development.

2.3.2 A further detailed description of the onsite habitats is provided in **Section 2.4** below, and their location is shown in the Preliminary Ecological Appraisal (Soltys Brewster Ecology, 2022). A detailed description of the management and maintenance measures to each of the onsite habitats is provided in **Section 5** below.

2.4 Existing Habitats

2.4.1 Habitats present on site include the following:

2.4.2 Dense scrub

2.4.3 The majority of the application site comprises of dense scrub, including areas of thick Bramble scrub interspersed with stands of Alder, Rose and Hawthorn. Along the eastern site boundary and small stream bank, there are taller stands of Hawthorn, Dogwood, Blackthorn, Holly and Willow, as well as a line of broadleaved trees.

2.4.4 Scattered broad-leaved trees

2.4.5 A line of broad-leaved trees runs along on the eastern boundary, including stands of Alder, Birch, Hazel, Sycamore and Ash.

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

2.4.6 **Poor semi-improved grassland**

2.4.7 Poor semi-improved grassland is in small areas along the road verge to Yr Hen Laethdy, mainly comprising tussocky Cock's Foot with scattered stands of Alder saplings. Other species include Yorkshire Fog, Bent grasses, Fescue grasses, Crested Dog's Tail, Creeping Buttercup, Dock, Dandelion and Ribwort Plantain. The habitat also contains some areas of disturbed ground from tracking vehicles and incidences of fly-tipping and burning.

2.4.8 **Running water/ ditch**

2.4.9 A small stream runs along the eastern boundary of the site, approximately 1m wide and containing a small volume of running water, approximately 4cm deep. Substrate is muddy and rocky and there is no/ limited aquatic and marginal vegetation present within the watercourse. Duckweed is present within slower flow sections of the channel. The stream is not noted for its quality and contains large amounts of plastic litter.

2.5 **Existing Species**

2.5.1 The species results are summarised below. Detailed accounts of survey work results can be found in the Preliminary Ecological Appraisal report (Soltys Brewster Ecology, 2022).

Bats

2.5.2 Foraging and commuting bats are considered likely to be supported by the habitats on the site, along with linkages to habitats outside of the site. The tree and scrub corridor along the eastern boundary is well connected to other linear habitat features in the surrounding area with suitability for bats, including a section of continuous woodland corridor which connects to habitats along the River Taff and A470 roadway. Common and Soprano Pipistrelle and Noctule and light sensitive species such as Brown Long-Eared and Myotis bats have been recorded in the surrounding area.

Birds

2.5.3 A small number of birds including House Sparrow, Great Tit, Blue Tit, Blackbird, Woodpigeon, Magpie and Jackdaw were recorded at the application site or within its immediate surroundings. These species are common and widespread and is typical of the habitats present. House Sparrow is listed as a priority species under Section 7 of the Environment Act (Wales) 2016. The dense scrub and tree habitats at the application site were considered likely to support nesting birds.

Reptiles

2.5.4 The areas of tussocky poor semi-improved grassland and dense scrub on the site provide suitable shelter and foraging opportunities for reptiles. However, given the small size of the

site and lack of connectivity and level of human disturbance, it is considered to be of low suitability to support common reptiles, but their presence cannot be discounted.

Hedgehog

2.5.5 The grassland and scrub habitats at the site provide suitable foraging resources for Hedgehog, multiple records of the species have been recorded with 1km of the site.

2.5.6 Invasive species

2.5.7 Invasive species were indicated by dead stands of Japanese Knotweed along the stream banks outside of the site boundary. Given the time of year the survey was undertaken, the presence of knotweed and other invasive plant species such as Himalayan Cotoneaster within the site cannot be discounted.

3.0 Proposed Avoidance, Mitigation and Enhancement Measures

3.1.1 Avoidance actions are listed below including proposals for new mitigation and enhancement measures as illustrated on **LA.1 Landscape Strategy**.

Ecological Buffer Zone

3.1.2 A 3m ecological buffer zone will be retained between the rear of garden curtilages and including the small watercourse at the eastern boundary of the site. The retention of this corridor will minimise any negative impact to habitat connectivity and fragmentation for bats.

3.1.3 Mitigation and enhancement within the 3m ecological buffer zone will include:

- Ecology sensitive removal of existing dense scrub
- Retention of existing dense scrub and scattered broad-leaved trees
- Native shrub understory planting
- Climbers along retaining wall and fence
- Reptile hibernaculum

3.1.4 Additional mitigation and enhancement measures within the wider site that contribute to the key design objective for the 3m Ecological Buffer zone include:

- Ecology sensitive removal of poor semi-improved grassland
 - Ecology sensitive lighting design
 - SuDS and ornamental shrubs using native species and species of known biodiversity value
 - Tree planting using native species and species of known biodiversity value
 - Bat and bird boxes
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Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- Hedgehog gaps
- Invasive species management
- Ditch/ running water

Native Understory Shrub Planting within 3m Ecological Buffer Zone

- 3.1.5 Understory native shrubs will be planted within the 3m ecological buffer zone, to fill any gaps within the existing trees following clearance to facilitate the development. Species selection will be native and informed by those found within the local area. The understory planting will minimise any negative impacts on habitat connectivity and fragmentation.

Climbers along retaining wall and fence within 3m Ecological Buffer Zone

- 3.1.6 Climbers along the retaining wall within the 3m ecological buffer zone will provide a strengthened ecological corridor within the 3m ecological buffer-zone and a landscape buffer for maintenance access and visual softening. Ivy will be planted along the top of the retaining wall to climb up the proposed fence and provide visual softening. Ivy will also be planted along the base of the wall in a 1m wide strip to allow for maintenance access to the fence and wall.

Reptile Hibernaculum within 3m Ecological Buffer Zone

- 3.1.7 To improve long term habitat suitability at the site for reptiles and amphibians, a reptile hibernaculum will be created within the 3m ecological buffer zone. The hibernacula will measure approximately 1.5m x 1.5m and will comprise of dead wood, rocks and other rubble and will be covered with turf.

Ecology sensitive lighting design

- 3.1.8 The design of any site lighting as part of the development will aim to reduce artificial light spill onto the 3m ecological buffer zone to further minimise any habitat fragmentation impacts to foraging/ commuting bats.

SuDS and Ornamental Shrubs

- 3.1.9 SuDS will be provided at on the west side of property frontages and shrub planting along the existing retained footpath through the centre of the site to provide additional amenity and biodiversity benefits. Species will include native species and species of known biodiversity value, with a combination of specimen plants, ornamental shrubs, herbaceous plant and ornamental grasses.



Tree planting

- 3.1.10 Trees will be planted on either side of the existing footpath to be retained through the centre of the site to provide additional biodiversity and amenity benefits.

Bat boxes

- 3.1.11 Roosting opportunities will be increased by installing bat boxes to the southern frontage of the two southernmost new properties (units 6 and 8)

Bird boxes

- 3.1.12 Bird boxes (House Sparrow Terraces) will be installed on the northern frontages of units 1 and 3 to provide local biodiversity enhancement.

Hedgehog

- 3.1.13 A 130mm x130mm gap will be included at the bottom of garden fences to provide continued connectivity for Hedgehog and other small mammals.

Invasive Species

- 3.1.14 Control measures will be implemented to manage the spread of invasive species at the site.

Running water/ ditch

- 3.1.15 The development proposals should implement appropriate pollution prevention measures to minimise any surface water run-off into the adjacent watercourse during construction activities.

4.0 Protection and Management Actions

- 4.1.1 The following details the avoidance and protection actions for the existing habitats, along with prescriptions for enhancement and creation of habitats. Ongoing management is detailed for each existing or proposed feature.

Ecological Buffer Zone

- 4.1.2 The ecological buffer zone will comprise the following features:
- Existing dense scrub to be removed
 - Existing dense scrub and scattered broad-leaved trees to be retained
 - Native understory shrub planting
 - Climbers along the retaining wall and fence
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Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- Reptile hibernaculum

Existing dense scrub to be removed

- 4.1.3 Some areas of the existing low quality sprawling scrub and small trees will be required for removal to facilitate the development. These areas are identified within the **Arboricultural Impact Assessment (ArbTS, 2022)**.
- 4.1.4 Removal would be subject to seasonal constraints, in accordance with the **Preliminary Ecological Appraisal (Soltys Brewster Ecology, July 2022)**. Clearance should be undertaken over the winter period outside of the nesting bird season (clearance possible between September-February). If this is not possible, an ecologist should be present to inspect habitats prior to removal to confirm the absence of nesting birds. Timing of vegetation clearance would also need to consider common reptiles and a coordinated approach regarding nesting birds and reptiles would therefore be required. This could involve the clearance of vegetation above ground (e.g. to a height of 150mm) over winter, with subsequent directional clearance to ground level between April and October.
- 4.1.5 The directional clearance process would involve an initial cut to 100-150mm with the use of hand tools (trimmer or brush-cutters), followed by a second cut to ground level after a minimum period of 48hrs. Arisings should be removed immediately following each cut. Works should be undertaken via a directional process, working west to east, to encourage any reptiles or other animals present to move towards retained habitats -this directional clearance would need to be implemented during the period when reptiles are active, typically April to October.

Existing dense scrub and scattered broad-leaved trees to be retained

- 4.1.6 The remaining existing dense scrub and trees will form part of the 3m Ecological Buffer Zone and will be retained protected during construction operation following the BS5837:2012 "Trees in Relation to Design, Demolition and Construction – Recommendations" and as identified within the **Arboricultural Impact Assessment (ArbTS, 2022)**. This includes through the erection of a protective fence, in accordance with the Arboricultural Impact Assessment.
- 4.1.7 Ongoing management of the scrub and trees will aim to promote structural integrity as an ecological corridor and botanical diversity.
- 4.1.8 Tree management will be avoided unless there are overriding safety concerns or where work is necessary to improve the longevity of the tree. Where tree works are necessary, an assessment of the tree's features to support protected species will be carried out by a suitably qualified ecologist in advance. Where removal of tree features capable of supporting protected species are necessary, then further surveys following recommended standard



published guidelines and where necessary mitigation will be carried out prior to works commencing.

- 4.1.9 Pruning any side branches of understorey vegetation where there is encroachment into the development can be undertaken outside the bird nesting season. Any tree / scrub pruning should be undertaken by a suitably qualified tree surgeon and inspected by an ecologist.

Native understorey shrub planting

- 4.1.10 Native understorey shrubs will be planted within the 3m Ecological Buffer Zone to fill any gaps within the existing trees following clearance, with the aim of providing continued and enhanced connectivity following development, increased biodiversity and interest within the site. Refer to **LA.1 Landscape Strategy** for the location of the proposed native understorey shrub planting.
 - 4.1.11 Native understorey planting will comprise a percentage based mix of *Conus sanguinea*, *Corylus avellana*, *Euonymus europaeus*, *Ilex aquifolium*, *Rosa canina*, *Sambucus nigra* and *Viburnum opulus*. The plants will be 2L or 3L pots and they will be carefully planted into the soil avoiding damage to roots of the existing scrub and trees. All will be between 30cm-60cm from 'day one'. Plants will be planted at 1m centres.
 - 4.1.12 Management of ground vegetation during the establishment period should be kept to a minimum and only where vigorous growth of coarse grasses threatens to smother the seedlings in the first three to four years following planting. A weed free area of at least 1m in diameter will be maintained around trees and shrubs for the first five years. Where necessary, ground vegetation should be restricted through cutting.
 - 4.1.13 The proposed species will be managed to heights of approximately 2-5m.
 - 4.1.14 It will be necessary to undertake occasional formative pruning of certain shrubs; this should be done with respect to the overall form and shape of the shrub. Species selection and the location of planting should ensure that the shrubs will not require severe pruning. It is not intended that the shrub planting will be cut back on a frequent basis. Where pruning occurs in the bird breeding season (March-September), works will avoid impacting active nests. If an active nest is found during pruning operations, an appropriate buffer (usually considered to be a minimum of 5m) will be established around the nest in which no works will occur until any young have fledged. The period that nests are active for varies between species of birds but can be several months.
 - 4.1.15 Favoured trees should normally have full rounded crowns and any competitors should be thinned out before the favoured trees become over topped. Thinning will help trees grow faster once they have clear space around the canopy into which they can grow and will also allow for more light to filter through the trees. Thinning should be avoided during the bird nesting season, which is usually between March to September.
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Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- 4.1.16 No fertilisers will be used as this will promote the proliferation of competitive species at the expenses of botanical diversity.
- 4.1.17 Maintenance commitments for the understory shrub planting will be minimal after the initial establishment period although the following will need to be undertaken:
- Water, including periods of drought;
 - Mulching once a year as necessary;
 - Litter removal; and
 - Pruning as necessary

Climbers along the retaining wall and fence

- 4.1.18 Climbers will be planted along the top of the retaining wall to climb up the proposed fence and in a 1m minimum width strip at the base of the wall to allow for maintenance access. The climbers will be planted with the aim of strengthening the ecological corridor and providing visual amenity benefit. Refer to **LA.1 Landscape Strategy** for the location of the proposed climbers.
- 4.1.19 The species selected will be Hedera helix in 2L pots, planted at the counted locations indicated along the top of the retaining wall and at 0.6m centres within the maintenance access strip at the base of the wall.
- 4.1.20 Hedera helix is self-clinging and is relatively maintenance free. During the establishment period the plants at the top of the retaining wall may require some guidance to encourage their growth up the proposed fence; however this is likely to be minimal.
- Following establishment maintenance is expected to be limited to occasional formative pruning to maintain self-clinging state.

Reptile hibernaculum

- 4.1.21 A reptile hibernaculum will be created within the 3m Ecological Buffer Zone and will comprise of dead wood, rocks and other rubble which will be covered with turf. The **Preliminary Ecological Appraisal (Soltys Brewster, 2022)** provides guidance on the design of the hibernaculum and its location is illustrated on **LA.1 Landscape Strategy**.
- 4.1.22 The hibernaculum is to be located within the area of existing retained scrub and trees and disturbance of the vegetation and ground where the hibernaculum is to be placed should be kept to a minimum. Following placement of the hibernaculum, subsequent maintenance should be kept to a minimum.
- 4.1.23 The hibernaculum should be checked annually for condition between the months of November to January. Where necessary brash and grass cutting could be added to maintain



the hibernaculum at least every two years in April and October. Cutting of the grass and vegetation within 2m radius of the hibernaculum should be avoided.

Poor semi-improved grassland to be removed

- 4.1.24 Poor semi-improved grassland on the road verge of Yr Hen Laethdy will be required for removal to facilitate the development.
- 4.1.25 Clearance of this vegetation should be in accordance with **Preliminary Ecological Appraisal (Soltys Brewster, 2022)**, which sets out measures to minimise any impacts on reptiles. In summary, this should be *“via a directional two-stage process where an initial cut to 100-150cm is undertaken with the use of hand tools (strimmers or brush-cutters), followed by a second cut to ground level after a minimum period of 48hrs”*. Following each cut, arisings are to be removed immediately. Works should be undertaken directionally east to west and implemented during April-October during the period when reptiles are typically active. Any larger root systems that require removal, including the earth mound (location identified within the Preliminary Ecological Appraisal) should be removed outside of the reptile hibernation period (typically October-March) under the supervision of an ecologist via a supervised destructive search.

Ecology sensitive lighting

- 4.1.26 The design of site lighting should aim to reduce artificial light spill onto the 3m Ecological Buffer Zone as far as practicable to minimise any habitat fragmentation impacts to foraging/commuting bats. This could include fitting down-lighters to security lighting at the rear of properties or the placement of lighting fittings away from windows on the rear elevation. A lighting guidance note is provided in the **Preliminary Ecological Appraisal (Soltys Brewster, 2022)**.

Tree planting

- 4.1.27 Trees will be provided along the existing retaining footpath through the centre of the site. *Betula pendula* has been selected, with a view to providing native species and species of known biodiversity benefit, in accordance with the recommendations of the **Preliminary Ecological Appraisal (Soltys Brewster, 2022)**. Refer to **LA.1 Landscape Strategy** for the location of the proposed tree planting.
 - 4.1.28 Any excavation for tree planting should be a few centimetres shallower than root-ball and twice its width with sloping, scarified sides. Root-balls of trees shall be set on 150mm depth of horticultural grade sharp sand.
 - 4.1.29 Backfill tree pots with 100/300mm depth subsoil and 400mm topsoil including Melcourt Topgrow peat free planting compost or similar approved at a rate of 0.125m³/pit.
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Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- 4.1.30 Tree planting in accordance with BS 8545:2014 – Tree from nursery to independence in the landscape recommendations.
- 4.1.31 Supply and plant, incorporating slow release fertiliser N:P:K – 4:19:10 ENMAG or similar approved at a rate of 130g/ tree pit.
- 4.1.32 Provide and fix tree stakes and ties to the following dimensions: Overall length 1500mm; height above ground: 750mm.
- 4.1.33 Maintenance commitments will be minimal after the initial establishment period although the following will need to be undertaken:
- Selective pruning to improve health, tree form and longevity
 - Pest and disease control
- 4.1.34 Where tree pruning is required, it will not be undertaken between March to August inclusive to protect breeding birds. If this cannot be avoided, a nesting bird check will be undertaken within 48 hours of the works, or immediately prior by a suitably experienced ecologist, to identify nests and enforce suitable buffer zones (5-10m expected) until the young have fledged.

SuDS and ornamental shrubs

- 4.1.35 SuDS will be provided on the west side of property frontages and shrub planting along the existing retaining footpath through the centre of the site. Native species and species of known biodiversity benefit have been specified in accordance with the recommendations of the **Preliminary Ecological Appraisal (Soltys Brewster, 2022)**. Refer to **LA.1 Landscape Strategy** for the location of the proposed SuDS and ornamental shrub planting.
- 4.1.36 SuDS and ornamental planting areas include a mix of shrub, herbaceous and grass species in 3L-7.5L pots. Plant specification to be in accordance with the HTA National Plan Specification: 03/02.
- 4.1.37 Any excavations to win soil for re-use as part of landscape must be undertaken in accordance with BS 8601:2013 and the 2009 Defra Construction Code of Practice for Sustainable Use of Soils on Construction Sites.
- 4.1.38 Backfill shrub pits with topsoil including Melcourt Topgrow peat free planting compost or similar approved at a rate of 1.0m³/20m³.
- 4.1.39 Shrubs are relatively maintenance free, but care should be taken to ensure that they establish successfully. Shrubs are a diverse group of plants with many different requirements in terms of watering, pruning, feeding etc. and consequently, general good horticultural practice should be continually applied with regards to different species' requirements.

- 4.1.40 It will be necessary to undertake occasional formative pruning of certain ornamental shrubs; this should be done with respect to the overall form and shape of the shrub. Species selection and the location of planting should ensure that shrubs will not require severe pruning. It is not intended that the shrub planting will be cut back on a frequent basis. Where shrub pruning is required, it will not be undertaken between March to August inclusive to protect breeding birds. If this cannot be avoided, a nesting bird check will be undertaken within 48 hours of the works, or immediately prior by a suitably experienced ecologist, to identify nests and enforce suitable buffer zones (5-10m expected) until the young have fledged.
- 4.1.41 Herbaceous plants will need to be cut annually and divided as required.
- 4.1.42 General maintenance shall include
- Watering, including during periods of drought;
 - Mulching once a year as necessary;
 - Plant replacements if necessary;
 - Litter removal; and
 - Pruning as necessary.

Bat and Bird Boxes

- 4.1.43 Bat and bird boxes will be provided in accordance with the **Preliminary Ecological Appraisal (Soltys Brewster Ecology, 2022)** to provide biodiversity enhancement for bats and birds. Bat and bird box locations are illustrated on **LA.1 Landscape Strategy**.
- 4.1.44 The Bat Conservation Trust (2021) recommends the following with regard to the installation of bat boxes:
- Bat boxes should be sited at a height of above 4m and away from artificial light sources
 - Ideally, they should be positioned where they are sheltered from the wind but unshaded for most of the day. A south-westerly aspect is preferred.
 - The bat boxes can be grouped together, each with a different height/ aspect, which will provide an option for bats. The boxes could be arranged around the trunk of larger trees, or each positioned on neighbouring trees.
 - A clear path to the entrance of the box should be available
 - Consideration should be given to tree growth when installing bird/ bat boxes. The boxes may require rehanging/ re-fixing over time. It is recommended that headless or domes nails are used (an not fully hammered in) to allow tree growth.
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Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- Bird/ bat boxes should not be sited in locations where there is potential for them to fall only a public footpath or highway and cause injury.

The bat boxes should be checked annually and cleaned out if necessary, by a Natural Resources Wales level 2 bat licenced ecologist. The checks should occur between November and January to avoid disturbing roosting bats and birds and ensure the boxes are ready for the next season. Bird boxes should be checked annually and cleaned out if necessary between November and January to avoid disturbing birds that are using the box.

Hedgehog Gaps

- 4.1.45 Hedgehog gaps will be provided at the bottom of garden fences to provide continued connectivity for Hedgehog and other small mammals. This is in accordance with the **Preliminary Ecological Appraisal (Soltys Brewster Ecology, 2022)**.
- 4.1.46 Following installation, maintenance of hedgehog gaps will be minimal. Hedgehog gaps should be checked annually to ensure they have not been stopped up. Where fences are replaced, gaps should be provided.

Invasive Species

- 4.1.47 The presence of knotweed and other invasive species on the site cannot be precluded. In accordance with the **Preliminary Ecological Appraisal (Soltys Brewster Ecology, 2022)**, as Japanese Knotweed is listed under Schedule 9 of the Wildlife and Countryside Act (1981) (as amended) it is an offence to plant or otherwise cause these species to grow in the wild. The development proposals will seek to manage the spread of invasive species at the site through appropriate control measures. This could include either:
- chemical treatment
 - removal and disposal.

Running water/ ditch

- 4.1.48 The site contains a small watercourse, which lies within the 3m Ecological Buffer Zone and should be protected from pollution from surface water run-off during the construction activities. This could include all reasonable steps to ensure pollution does not occur. For example, this may be through ensuring that surface water discharge:
- does not contain trade effluent/ sewerage
 - does not destabilise banks or bed of the stream
 - does not contain run-off from areas where potentially polluting matter is handled or oil and chemical storage, delivery and handling areas

- 4.1.49 All parts of the surface water drainage system must be maintained in good working order. Measures to minimise the amount of silty water being produced should also be considered, such as through minimising the amount of exposed ground and stockpiles of soil on the site. Phasing of works to ensure that mud from vehicles, roads or surface water run-offs from areas under construction does not enter surface water drainage of areas already completed.
- 4.1.50 A protective fence, in accordance with the arboricultural report, shall be erected to protect the buffer zone and the stream during the construction phase of the development.

5.0 Annual maintenance

5.1 Maintenance programme

- 5.1.1 The annual maintenance programme for the site will be carried out in line with the following programme to ensure that the maintenance works is carried out at the most beneficial time. For all seasons, the following will need to be undertaken:
- Inspections;
 - Watering – may be necessary during the establishment period or through periods of drought to ensure the planting/grass areas continue to thrive; and
 - Pest and disease control.

Table 5-1 Timetable for Implementation and Habitat Management

Action	January	February	March	April	May	June	July	August	September	October	November	December	Notes
Pre-construction													
Toolbox talk													To all construction staff prior to any works commencing
Installation of protective fencing													To area identified within Arboricultural Impact Assessment
Construction and Operation													
Clearance of existing dense scrub to be removed													Coordinated two-stage directional clearance
Management and pruning of existing dense scrub and scattered broad-leaved trees to be retained													Only where required to improve the longevity of the tree or where there are overriding safety concerns

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

Action	January	February	March	April	May	June	July	August	September	October	November	December	Notes
Native shrub understorey shrub planting management													Minimal formative pruning, thinning
Climbers													Occasional guidance and minimal formative pruning
Installation of reptile hibernaculum and annual condition checks													Disturbance of ground where it is to be placed kept to a minimum
Clearance of poor semi-improved grassland													Directional two-stage process
Tree planting management													Selective pruning to improve health, form and longevity, pest and disease control
SuDS and ornamental shrubs													Minimal formative pruning
Installation of bat / bird boxes													Ahead of the breeding season
Bat / bird box condition checks													

5.2 Annual maintenance schedules

Table 5-2 Annual Maintenance: Tree, native understorey shrub, shrub and climber planting

Action	Details	Timing	Standard
Weed control	Hand weed a minimum of 4 times per year. Apply a herbicide to kill re-growth when required.	February; April; May; July; September	Refer to Appendix 1 : Q35/ 645; 650; 657; 670
Fertilizer	Applications of fertilizer to be carried out early in the growing season.	April	Ensure correct fertilizer application. Refer to Appendix 1 : Q35/ 695
Pest and disease control	To be carried out if necessary and in accordance with best practice.	When required	To eradicate all pests and disease to a high standard
Pruning	At the appropriate season for the species, pruning to be carried out to remove all damaged diseased or dead wood. To be commenced from year 5.	February – October Where pruning occurs in bird breeding season (Mar – Sept), works must avoid impacting nests	Shrubs and climbers: Prune to ensure the plant is kept well balanced and in good shape. Refer to Appendix 2 for pruning techniques and Appendix 3 for pruning schedule. Refer to Appendix 1: Q35/ 170; 540; 545; 550; 575; 580
Tree thinning	Once every five years, to stop favoured trees becoming suppressed and weakened by other vegetation.	Avoid nesting season between March-Sept	Refer to Appendix 1 : Q35/715

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

6.0 Appendices

Appendix 1: Maintenance Specification Q35

Generally

- 110 NOTICE: Give notice before:
- Application of herbicide.
 - Application of fertilizer.
 - Watering.
 - Each site maintenance visit.
 - Period of notice: 1 week before site visit.
- 130 REINSTATEMENT: Damage or disturbance to soil structure, planting, grass: Reinstate to original condition and within a reasonable period of time (according to season).
- 140 CONTROL OF MAMMALIAN PESTS: Employ only approved firms and methods.
- 155 WATERING
- Supply: Potable mains water.
 - Quantity: Ensure the full depth of topsoil is thoroughly wetted.
 - Application: Do not damage or loosen plants. Use a fine rose or low-pressure hose where appropriate to avoid damaging or loosening plants.
 - Compacted soil: Where necessary, loosen soil or form depressions around the stem base of plants to ensure that water reaches the root zone instead of dispersing on the surface.
 - Frequency: As necessary for the continued thriving of all planting/grass areas.
- 160 WATER RESTRICTIONS: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.
- 170 DISPOSAL OF ARISINGs GENERALLY: unless specified otherwise, dispose of arising from all specified operations by removing from site.
- 180 CHIPPING OR SHREDDING: Not permitted on site.
- 197 CLEANLINESS: Leave the works in a clean, tidy condition at completion and after any maintenance operations.

Native Shrubs / Trees

- 500 ESTABLISHMENT OF NEW PLANTING
- Duration: 0-5 years.



- Weed control: refer to Q35/645; 650; 657; 670.
- Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.

510 TREE STAKES AND TIES (IF REQUIRED): Inspect as scheduled and additionally immediately after strong winds, and carry out the following:

- Check stakes for looseness, breaks and decay and replace as necessary to original specification. If a tree with a defective stake has grown sufficiently to become self supporting, remove stake(s) and fill the hole(s) with lightly compacted soil.
- Adjust, refix or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing. Where chafing has occurred, reposition or replace ties to prevent further chafing.
- Where stakes are longer than half the height of the clear stem of the tree, cut the stake to this height in spring and retie to tree firmly but not tightly with a single tie.
- Remove redundant tapes, tags, ties, labels and other encumbrances.
- Remove stakes and ties during spring when no longer required to support tree.

520 REFIRMING: Ensure that trees and shrubs remain firmly bedded after strong winds, frost heave and other disturbances. Refirm by treading around the base. 'Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary, and refirmed.

530 TREE SHELTERS: Adjust, refix or replace any loose or defective guards to original specification and to prevent chafing. Remove tree shelters and dispose off site once trees / shrubs are fully established.

540 PRUNING GENERALLY:

- Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.
 - Thin, trim and shape appropriately to each species, location, season, and stage of growth, leaving a well balanced natural appearance.
 - Use clean sharp secateurs, hand saws or other tools to carry out works. Trim off ragged edges of bark or wood with a sharp knife.
 - Remove branches without damaging or tearing the stem.
 - Keep wounds as small as possible and cut cleanly back to sound wood. Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
-

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- Prune larger branches neither flush nor leaving a stub but using the branch bark ridge or branch collar as a pruning guide.
- 545 PRUNING OF EXCESSIVE OVERHANG: Remove annually any growth encroaching onto grassed areas.
- 550 PRUNING OF EXCESSIVE HEIGHT: Remove excessive height of more than five metres within the edge mix, and eight metres within woodland mix and dispose off site.
- 570 FORMATIVE PRUNING OF YOUNG TREES:
- Do not prune whips or feathered trees.
 - Type and timing of pruning operations to be carried out to suit the plant species.
 - Do not prune during the late winter/early spring sap flow period, unless specified otherwise.
 - Crown prune young trees up to 4 m high by removing dead branches and reducing selected side branches by one third to preserve a well balanced head, ensuring the development of a single strong leader and the removal of duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
- 580 PRUNING FLOWERING SPECIES: Unless otherwise specified or instructed, prune:
- Winter flowering shrubs in spring.
 - Shrubs flowering between March and July immediately after the flowering period.
 - Shrubs flowering between July and October back to old wood in winter.
- 611 TRIMMING ESTABLISHED HEDGES:
- Time of year: January/February.
 - Operations:
 - Form: Trim carefully and neatly to regular line and shape with vertical sides.
 - Trim: Remove current growth rather than old wood.
 - Tools/ Cutting: suitable mechanical cutters.
- 620 REMOVAL OF DEAD PLANT MATERIAL: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.
- 635 REINSTATEMENT OF PLANTING AREAS:
- Remove dead and damaged plants.
 - Carefully move any mulch materials to one side and dig over the soil, leaving it fit for replanting. Take care not to disturb roots of adjacent plants.



- Replace plants, using pits and plants to the original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
- Dress with Enmag slow-release fertilizer at 70g/sq. m.

645 WEED CONTROL GENERALLY:

- Remove and/or prevent plant growth that is not required in the landscape to achieve the following level(s) of weed control: 90% control; no weed species in excess of 150mm high.
- Ensure that the methods used cause the minimum of damage to adjacent plants, trees or grass.
- All tree and shrub planting to be maintained weed free throughout planting area.

650 HAND WEEDING: Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to trees, plants, mulched surfaces and leaving the area in a neat, raked, clean condition.

657 HERBICIDE TO KILL REGROWTH:

- Apply a suitable foliar acting herbicide to kill regrowth.
- Allow the recommended period before clearing arisings.

670 WEED CONTROL WITH SUMMER HERBICIDE:

- Apply a suitable foliar acting herbicide.
- Re-apply as necessary to maintain required level of weed control.
- Allow the recommended period before clearing arisings.

680 SOIL AERATION: Prick up trodden or otherwise compacted soil surfaces using a border fork as specified in BS 7370: Part 4, to aerate the soil of root areas. Do not damage plants and their roots.

690 MAINTENANCE OF MULCH:

- Top up with Melcourt Forest Biomulch to thickness of 50mm.
- Sweep up and replace mulch spilling onto adjacent areas and, if not contaminated with weeds or rubbish, return to planted area.
- Remove weeds growing on or in mulch by hand weeding or herbicide.

695 FERTILIZING ESTABLISHED TREES AND SHRUBS: Spring spread of Enmag slow-release fertilizer, at a uniform rate of 70g/m².

710 NATIVE TREE AND SHRUB PLANTING MAINTENANCE

- Watering: In exceptional circumstances to prevent plants dying.
 - Loose plants: Refirm surrounding soil, without compacting.
-

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- Vegetation: Except trees and coppice shoots to be retained, cut down to 5m in edge mix area and 8m in woodland mix area.
- Arisings: Leave between rows.
- Ditches and drains: Keep clear.

715 NATIVE TREE AND SHRUB THINNING: Thin out the northern edge of the existing woodland, every five years, by removing dead/dying trees and favouring straight, upright trees. Prune low branches along the northern edge. Allow the removal of branches to be left on woodland floor to decay and return nutrients into the soil. Avoid thinning during the bird nesting season (generally March-September).

Tree work

810 TREE WORK GENERALLY

- Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
- Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
- Removing branches: Cut as shown in Arboricultural Association Leaflet No 8 'Mature tree maintenance'. Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
- Appearance: Leave trees with a well-balanced natural appearance.
- Chain saw work: Operatives must hold a Certificate of Competence.
- Tree work: To be carried out by an approved member of the Arboricultural Association.

815 ADDITIONAL WORK

- Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

820 PREVENTION OF WOUND BLEEDING

- Standard: To BS 3998, clause 8.

825 PREVENTION OF DISEASE TRANSMISSION

- Standard: To BS 3998, clause 9 and Appendix B.

830 CLEANING OUT AND DEADWOODING

Remove:

- Rubbish, wind blown or accumulated in branch forks.



- Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
- Other unwanted objects, e.g., tree houses, swings.

835 CUTTING AND PRUNING GENERALLY

- Tools: Appropriate, well maintained and sharp.

Final pruning cuts:

- Chainsaws: Do not use on branches of less than 50 mm diameter.
- Hand saws: Cut in one continuous operation to form a smooth cut surface.
- Anvil type secateurs: Do not use.

Removing branches: Do not damage or tear the stem.

- Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible.

Large branches: Remove in small sections and lower to ground with ropes and slings.

- Dead branches and stubs: When removing, do not cut into live wood.
- Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
- Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

840 CROWN REDUCTION/ SHAPING

- General: Cut back selectively to lateral or sublateral buds or branches to retain flowing branch lines without leaving stumps.

845 CROWN LIFTING

- Clearances: Remove branch systems to give clearance.
- Removing branches: Remove whole branches back to the stem or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

850 CROWN THINNING

- Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches.
 - Thinning: Selectively remove approximately 2.0 metres of secondary and small live branch growth evenly throughout the crown.
-

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

- Branches: Cut back to lateral or sublateral buds or branches without leaving stumps.
- Appearance: Leave a uniform and well-balanced structure of branches and foliage

855 CUTTING TREE ROOTS

- Excavating: Use hand tools only.
- Protected area: Do not cut roots within an area which is the larger of:
 - The branch spread of the tree.
 - An area with a radius of half the tree's height, measured from the trunk.
- Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.

Cutting:

- Make clean smooth cuts with a hand saw.
- Wounds: Minimize. Avoid ragged edges.
- Finishing: Pare cut surfaces smooth with a sharp knife.

Backfilling:

- Protection: Cover cut roots with clean sharp sand.
- Material: Backfill with original topsoil.

860 REMOVING TREES

- Standards: To BS 3998, Appendix A and Health & Safety Executive (HSE)/ Arboricultural and Forestry Advisory Group Safety Leaflets.
- Existing services: Check for below and above ground services. Give notice if they may be affected.
- Shrubs and smaller trees: Cut down and grub up roots.

Tree stumps:

- Removal by winching: Give notice. Do not use other trees as supports or anchors.
- Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.

Filling holes:

- Material: Use as-dug material and/ or imported soil as required.
- Finishing: Grade to marry in with surrounding ground level



865 BARK DAMAGE

Wounds:

- Bark: Gently remove ragged edges using a sharp knife.
- Wood: Remove splintered wood from deep wounds.
- Size: Keep wounds as small as possible.

870 CAVITIES IN TREES

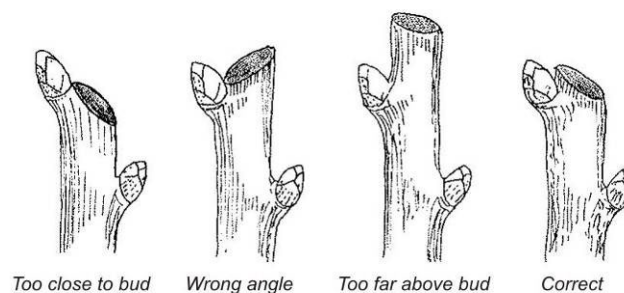
- Investigation: Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay and give notice.
 - Water filled cavities: Do not drain.
 - Sound wood inside cavities: Do not remove.
-

Appendix 2: Pruning Techniques

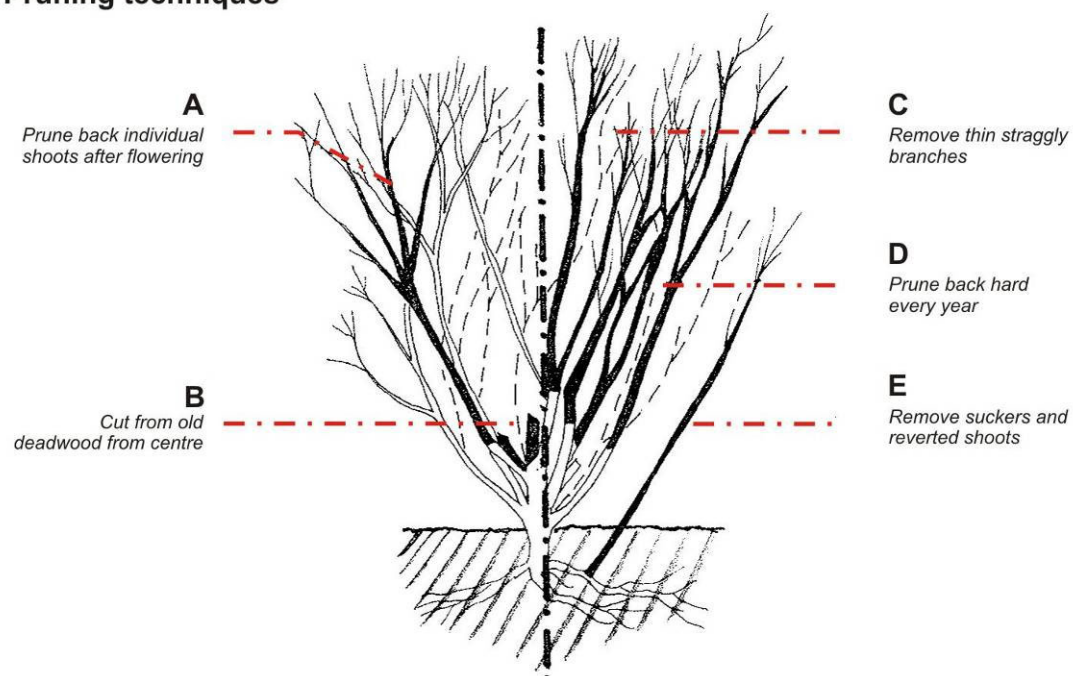
General notes

- All pruning cuts shall be made in accordance with BS 7370
- Priming shall be undertaken to promote flowering and fruiting in accordance with the species and age of the plant.
- Stems shall only be removed so as to retain the natural appearance of the individual plant species.
- All damage, diseased or deadwood material shall be removed from trees/shrubs.
- Any crossing or rubbing branches are to be removed from trees/shrubs.
- Plants may be permitted to overlap hard areas e.g., paving. If growth restricts the use of the paving, it will be necessary to trim by shortening long growths NOT by cutting indiscriminately along the edge.
- Ground cover plants should not overhang grass areas because of the difficulty in keeping edges trimmed, prune back encroaching growth.
- Pruning cuts and techniques

Pruning cuts



Pruning techniques



taken from Landscape Management & Maintenance Handbook, Jones, Hing P (1990)

Kinglsey Terrace, Merthyr Tydfil

Landscape and Ecology Management Plan (LEMP)

Appendix 4: Drawings

- TC23144 **LA.101:** Landscape Strategy
- TC23144 **LA.102:** Planting Plan



Key

Tree planting (root barriers to be provided as necessary)

Ivy planted at the top of the wall to climb up the proposed fence

Proposed shrub planting

Hedge

Ground cover ivy at the base of the wall, minimum 1.0m wide strip to allow for maintenance access

Specimen shrubs

Planting within SuDS

Understorey native shrubs to fill any gaps within the existing trees following clearance

Protective fence, in accordance with arboricultural report, to be provided to protect the buffer zone and the stream

Ecology

Bird box

Bat box

Reptile log pile

0 2 4 6 8 10 20 metres

Scale 1:200 @ A1

North

Outline implementation specification for planning

Ground Preparation

Protection of existing woodland, trees and hedges against damage to be in accordance with the BS 5837:2012 - Trees in relation to design, demolition and construction - Recommendations. Protective fence to be approved.

Excavations to B.S. 8000 part 1:1989. Excavated material removed off-site; good quality subsoil/topsoil stored on-site for re-use.

Landscape planting areas to have a minimum depth of soil of 500mm and grass areas will have 300mm.

Loosen formation level with single tine ripper, driven 450mm deep at 1m centres, when ground conditions are dry.

Supply approved imported subsoil to B.S. 8601:2013 Specification for subsoil and requirements for use - Multipurpose subsoil to make up any deficiency in on-site subsoil. Spread and level to depth of:

200mm for planting areas

Supply approved imported topsoil to B.S. 3882:2015 Specification for topsoil - Multipurpose topsoil to make up for any deficiency in on-site topsoil. Spread and level to depth of:

300mm for planting areas

Excavate planting pits to the following dimensions:

Extra Heavy Standard Trees: 1200 x 1200 x 700mm depth
Shrubs: 300 x 300 x 300mm depth

Backfill tree pits with 100/300mm depth subsoil and 400mm topsoil including Melcourt Topgrow peat free planting compost or similar approved at a rate of 0.125m³/pit.

Backfill shrub pits with topsoil including Melcourt Topgrow peat free planting compost or similar approved at a rate of 1.0m³/20m³.

Cultivate all landscape areas to a loose and friable tilth suitable for grass seeding or planting.

Collect and remove from site all stones, builders' rubble and other deleterious material over 50mm in any dimension.

Planting Areas

Plant specification to be in accordance with the HTA National Plant Specification: 03/02

Tree planting to be in accordance with BS 8545:2014 - Trees from nursery to independence in the landscape recommendations.
Supply and plant, incorporating slow release fertiliser N:P:K - 4:19:10 ENMAG or similar approved at the following rates:

Extra Heavy Standard Trees: 130g / tree pit
Shrubs: 70g / m²

Provide and fix tree stakes and ties to the following dimensions:

Extra Heavy Standard Trees: overall length 1500; height above ground: 750mm

Provide and spread evenly over all planting areas an organic graded bark flakes or similar approved bark mulch to a depth of 50mm.

Maintenance

All landscape areas to be maintained in accordance with B.S. 7370 Part 3:1991 and Part 4:1993; including weed control, and adjustment to tree stakes and ties.

General Notes

Substitutions, if made, should be similar in size, form and water demand.
Plants shall be arranged to avoid straight lines and geometric patterns.

Number	Abbreviation	Species	Girth	Height	Specification
2	BET PEN	Betula pendula	16-18cm	400-450cm	3x; Extra Heavy Standard; clear stem minimum 200cm; RB
Total :	2				

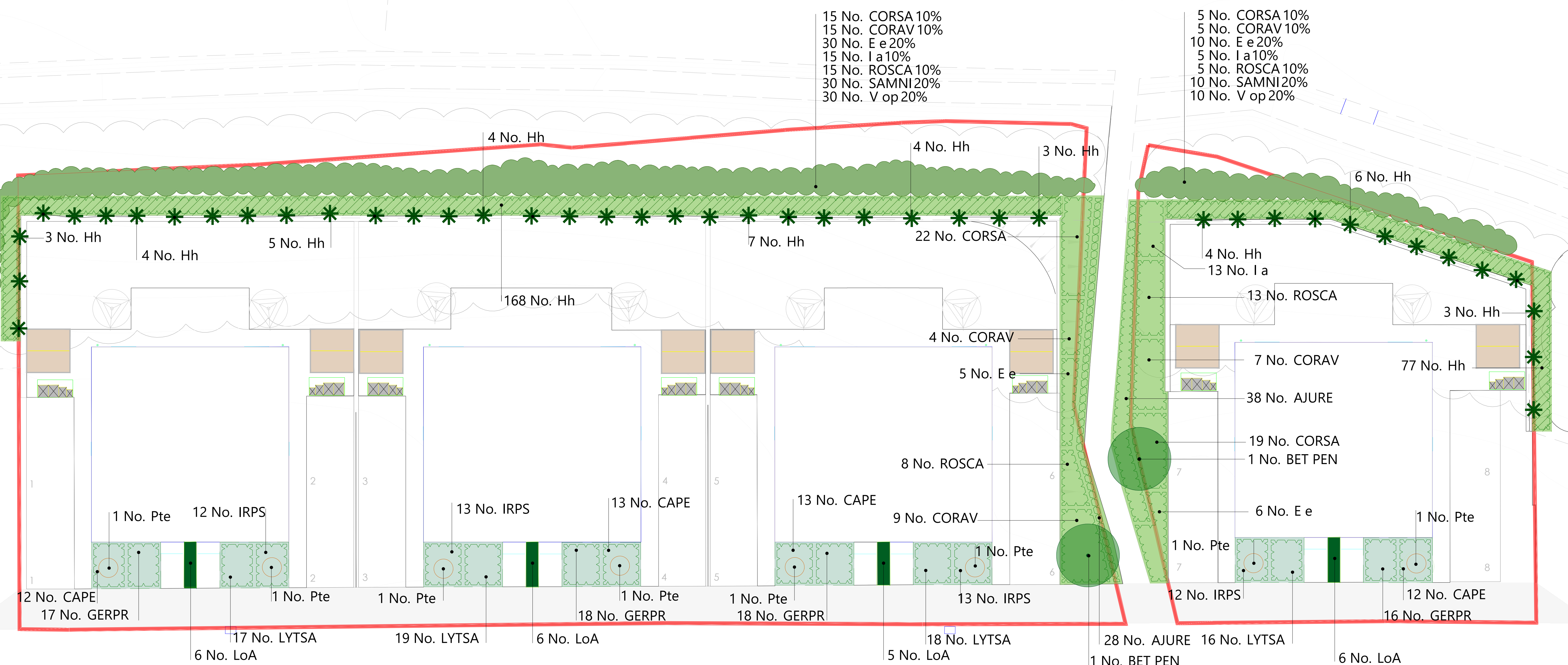
Shrubs						
Number	Abbreviation	Species	Height	Pot Size	Specification	Density
41	CORSA	Cornus sanguinea	40-60cm	3L	Branched; 4 brks: C	0.6Ctr
20	CORAV	Corylus avellana	100-125cm		Branched; 5 breaks RB	1Ctr
11	E e	Euonymus europaeus	60-80cm	5L	Branched; 5 brks: C	1Ctr
13	I a	Ilex aquifolium	40-60cm	3L	Leader with laterals	0.6Ctr
23	LoA	Ligustrum ovalifolium 'Aureum'	100-125cm		Bushy; 80cm spread; 11 breaks RB	1Ctr
8	Pte	Phormium tenax	40-60cm	3L	7 leaves	Counted
21	ROSCA	Rosa canina	40-60cm	3L	Branched; 5 breaks; C	0.7Ctr
Total :137						

Herbaceous					
Number	Abbreviation	Species	Pot Size	Specification	Density
66	AJURE	<i>Ajuga reptans</i>	2L	Full pot; Sept to April planting; British native-origin Full Pot	0.6Ctr
69	GERPR	<i>Geranium pratense</i>	3L	Full pot	0.5Ctr
50	IRPS	<i>Iris pseudacorus</i>	3-4L	Full Pot	0.6Ctr
70	LYTSA	<i>Lythrum salicaria</i>	3-4L	Full Pot	0.5Ctr
Total :255					

Climbers						
Number	Abbreviation	Species	Height	Pot Size	Specification	Density
43	Hh	Hedera helix	40-60cm	2L	Several shoots; 3 breaks	Counted
245	Hh	Hedera helix	40-60cm	2L	Several shoots; 3 breaks	0.6Ctr

Grasses					
Number	Abbreviation	Species	Pot Size	Specification	Density
50	CAPE	Carex pendula	3L	Full Pot	0.6Ctr
Total :50					

Native understorey shrub planting							
Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution
20	CORSA	Cornus sanguinea	Branched; 4 breaks	40-60cm	3L	1Ctr	10%
20	CORAV	Corylus avellana	Branched; 3 breaks	40-60cm	3L	1Ctr	10%
40	E e	Euonymus europaeus	Branched; 3 breaks	40-60cm	2L	1Ctr	20%
20	I a	Ilex aquifolium	Bushy; 2 breaks	30-40cm	2L	1Ctr	10%
20	ROSCA	Rosa canina	Branched; 3 breaks	40-60cm	2L	1Ctr	10%
40	SAMNI	Sambucus nigra	1+1; Transplant - seed raised; branched; 3 breaks; B	60-80cm	2L	1Ctr	20%
40	V op	Viburnum opulus	Branched; 3 breaks	40-60cm	2L	1Ctr	20%
Total :200							

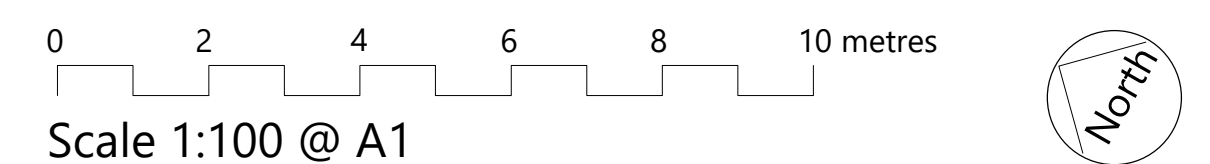


Ligustrum ovalifolium 'Aureum' has been specified to provide low maintenance evergreen hedges between properties creating year round interest with clusters of white flowers in July and August

Kinglsey Terrace,
Merthyr Tydfil

Planting Plan

LA.2



TC22081_LA2 v8.dwg

09 March 2023

