

Tree Planting & Maintenance Scheme

Land at
Rossett Recreation Ground
Rossett
Wrexham

Ref:
TPS/RRG/03/23

Date:
21st March 2023

Commissioned by:
Ms W. Pace
on behalf of
Rossett Community Council

Prepared by
S. Shields

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Introduction

- 1.1 Shields Arboricultural Consultancy received instructions from Ms W. Pace on behalf of Rossett Community Council. The client or their agents may copy and distribute this report as required for the purpose of applying for planning permission for or preparing any documents or plans for this or future applications at this site.
- 1.2 Planning permission for the demolition of disused toilet block and construction of new community hub with associated internal works has been conditionally granted in accordance with the approved plans and particulars under planning reference ROS P/2022/0008. This report is provided to discharge condition 4 of this permission. The development is to be in accordance with the approved site layout drawing ref: A 002 which are considered in this report.
- 1.3 To offset tree loss associated with the above development and to provide a net biodiversity benefit, a tree planting scheme has been prepared to provide new trees on and adjacent to the site along with improvements to existing features.

Scope & Limitations

- 2.1 The purpose of the report is to provide a Tree Planting Scheme for the above site.
- 2.2 The report takes account of the recommendations of the British Standard Document BS 8545: 2014 Trees: from nursery to independence in the landscape – Recommendations.
- 2.3 This report is not an ecological assessment and does not identify habitats or constitute a protected species survey.

Policy & Strategy

Planting objectives

- 3.1 Replace trees lost through development to maintain canopy cover and landscape quality in local area, improve biodiversity across the site and provide an attractive setting for the building.

Statutory controls

- 3.2 Trees are planted subject to a planning permission.

Environmental considerations

- 3.3 The local landscape is characterised by low density, residential housing. No specific environmental constraints affect tree planting in this area.

Site Evaluation & Constraints

General

- 4.1 The site, which is part of the Rossett Recreation Ground currently support an existing building with areas of amenity grass to the south and east of the building. Following the re-development of the site it is

proposed to undertake landscape planting in the area to the east of the site and to improve the existing hedgerow to the west.

Ground assessment

- 4.2 The site is mainly set to maintained amenity grass. Soils at the site appear to be free draining brown earths with no indication of waterlogging. This type of soil is usually amenable to rooting with few constraints to root development.
- 4.3 Soil was assessed manually and classed as a loam.
- 4.4 Soil pH of 6.5
- 4.5 No drainage, percolation test was undertaken, but soils appear to be free draining, but water retentive.

Climatic conditions

- 4.6 Site is reasonable sheltered and well-lit receiving full or part sunlight for the majority of the day during the growing season.

Site features and existing vegetation

- 4.7 There are a variety of trees present on the site, predominantly mature specimens situated around the boundary. Species include, cherry, sycamore horse chestnut and oak, along with some more recent plantings including pine and ornamental cherry. A hedgerow runs along the west boundary of the site. This is predominantly hawthorn and sycamore, however there is considerable ivy growth and numerous gaps.
- 4.8 There is adequate space available for crown development of medium and large sized trees at the selected planting locations.
- 4.9 No evidence of underground services, however it is recommended that a CAT scan is undertaken prior to excavating the planting pits.

Species / Planting Stock Selection

- 5.1 Selected species must be capable of becoming attractive, long-lived specimens that can tolerate the prevailing site conditions and will contribute to the biodiversity at the site. It is proposed to plant 3 Field Maple (*Acer campestre*) Heavy Standard Trees and 2 fastigiate oak (*Quercus robur 'fastigiata'*) Heavy Standard Trees, in the locations indicated on the planting plan. In addition to the tree planting it is proposed that the condition of the boundary hedge be improved through enrichment planting using hawthorn (*Crataegus monogyna*), Hazel (*Corylus avellana*) bare root 40cm – 60cm whips and holly (*Ilex aquifolium*) pot grown 40cm – 60cm at a ratio of 6 hawthorn to 1 holly and 2 hazel. The trees must be selected and planted in accordance with the following specifications. It is preferable that the trees are inspected and selected in the nursery prior to delivery on site.

5.2 Planting Stock Specification

Species	Shape	Stem Girth @1m	Height	Container Volume	Production Method
<i>Field Maple</i>	<i>Heavy Standard</i>	12cm – 14cm	3.0m – 3.5m	60 lts.	Container grown
<i>Fastigate Oak</i>	<i>Heavy Standard</i>	12cm – 14cm	3.0m – 3.5m	60 lts.	Container grown
<i>Hawthorn</i>	<i>Whip</i>		40cm/60cm		Bare Root
<i>Holly</i>	<i>Whip</i>		40cm/60cm	2lts.	Pot Grown
<i>Hazel</i>	<i>Whip</i>		40cm/60cm		Bare Root

- 5.3 The tree should be supplied packed in accordance with the recommendations of BS 8545: 2014. The trees must be delivered in good condition and be free from damage, if transported in open lorries, trees must be protected by opaque sheeting. Root systems must be moist and protected during transport and. Trees should be inspected and approved prior to accepting delivery. If planting is not undertaken immediately after delivery, the tree should be placed in a sheltered location and the container covered with sand to prevent drying or freezing. Whips should be kept in their delivery bags. Trees will be inspected on delivery in accordance with the standards set out in table 1 BS 8545: 2014. Trees that do not meet the standard will be rejected and returned to the nursery.

Planting, Protection & Maintenance

Specimen Tree Planting

- 6.1 To ensure that the landscape planting is to the highest standard, it is recommended that a quality planting materials and products are used. This report specifies the use of the GreenBlue Urban Arborsystem® www.greenblue.com as the preferred planting product and Barcham Trees www.barcham.co.uk as the preferred supplier for the planting stock, however it may be considered preferable to use a local supplier to reduce carbon footprint and whips should be sourced locally using local provenance stock where possible.

Site Preparation

- 6.2 The proposed planting site are situated in areas currently set to soft landscaping. All tree planting areas are to be protected from compaction and contamination during the construction phase of the development using either protective fencing or load spreading ground protection. (See Arboricultural Impact Assessment)

Soil Addition and Improvement

- 6.3 If any top-soil is degraded or removed during construction, a layer of Rootsoil 20® or quality topsoil taken from other locations on the site is to be spread across the planting areas to a minimum depth of 200mm.

The soil is to be loose tipped and spread using hand tools. Once levelled the soil should be left undisturbed for around eight weeks to allow for natural consolidation and then lightly firmed using a light weight (80kg) garden roller.

Tree Pits

- 6.4 All trees are to be pit planted in the locations identified on the attached Tree Planting Plan ref: RRG/TPS/OL/03/23/01. Tree planting pits are to be prepared as follows, in accordance with the drawings (GBU2002) provided in appendix A. If services are not required beneath the pits then the design can be amended to remove the root barrier. Once the soil has consolidated, the tree pits are to be excavated to the size of 1.5m diameter and to the depth of the root container of the planting stock. The bottom and edges of the pit are to be lightly broken up to using a fork, to improve root penetration. Tree pits are to be back filled with excavated soil, which must be stored loose tipped adjacent to the tree pit. Care must be taken to ensure that topsoil and sub-soil are stored in separate piles. The base plate of the guying system is to be installed in the base of the pit in accordance with manufactures recommendations.

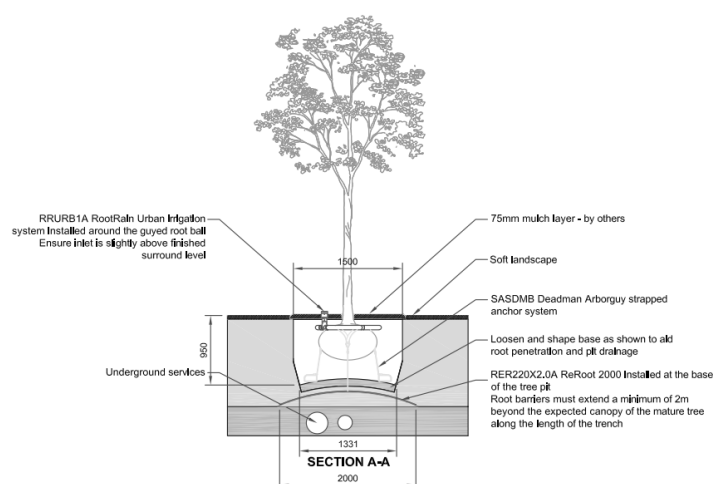


Figure1 Soft Landscape Tree Pit © GreenBlue Urban

Planting

- 6.5 Trees should not be planted when the ground is frozen or waterlogged. It is recommended that trees are planted during the winter period. Prior to planting, remove any damaged or rubbing branches in accordance with BS 3998: 2010 good practice guidelines. Remove and tags or labels and any stem wrapping. The tree **must** be planted at its original root collar soil depth. The soil mark on the stem is an indication of this and it should be maintained on the finished level, allowing for settling of the soil after planting. If required, the pit should be partially backfilled to 'bed up' the tree to the desired height. The compost / growing medium in container grown trees must be moist

before planting and before containers are removed. The growing medium in the soil cells should be thoroughly watered prior to planting.

- 6.6 Once the container is removed and immediately before planting, any broken or damaged roots must be cut back to sound growth and to an appropriate point; heavily coiled or spiralling roots should be eased from the rootball or pruned back. Once the tree is satisfactorily positioned the RootRain® aeration / irrigation system can be installed and the pit should be backfilled using the excavated soils, **it is important to ensure that topsoil is not used below the depth of the original topsoil layer.** The backfill should be added in layers of around 150mm and lightly firmed to ensure close contact with the roots. Trees should have 20 lts of water applied through the irrigation system after planting. Once planted and firmed the tree must be secure using the Arborguy® system as specified in the drawing.
- 6.7 A woven, water permeable polypropylene mulch mat (600mm x 600mm) is to be placed around the base of the tree and secured using pegs or pins and then an over laid with 20mm of sterilised bark chippings. Chippings should be pulled back from the base of the stem of the tree.

Enrichment Planting Hedge

- 6.8 The hedgerow restoration and enrichment planting will be undertaken on a 30 metre stretch of hedgerow running south from the northwest corner of the site, adjacent to the new building. Site preparation will include the removal of ivy from the hedgerow and the clearance of weeds from around the planting site, undertaken using hand tools. **NB – it is recommended that hedgerow restoration is undertaken during the late autumn or winter to prevent the disturbance of nesting birds and provide optimum planting conditions for bare root tree stock.**
- 6.9 Hedging is to be planted in a double off-set row at 50cm x 50cm centres to fill all gaps. Whips are to be notch planted and pots to be pit planted. The notch is to be cut to accommodate the spread and depth of the root system. Care must be taken to ensure that the notch is not too deep as it is essential that the plants are planted at the original root collar depth. Tree roots must be protected from elements until planted, this usually requires that they are kept in their delivery bag. Shrubs are to be protected using fine mesh shrub guards and secured using canes or stakes. Pit planting requires a small pit excavated to accommodate the root ball and should be planted in accordance with directions given in section 6.5. Whips are to be protected using spiral guards secured by canes and holly plants are to be protected using fine mesh shrub guards and secured using canes or small stakes.
- 6.10 A woven, water permeable polypropylene mulch mat or weed control fabric is to be placed around the base of the plants and secured using pegs or pins.
- 6.11 Remove all debris leaving site clean and tidy.

On-going maintenance

- 6.12 All newly planted trees should be inspected in the first few weeks after planting and after periods of frost or strong winds. The trees should be re-firmed where heave or movement has occurred, and the guying system adjusted as necessary.
- 6.13 The mulch mats around each tree are to be inspected and maintained in good condition and the area they cover maintained free from weeds, grasses or other vegetation for a period of 3 years after planting.
- 6.14 The trees are to be watered during dry spells. Trees are to be inspected following periods of more than 10 days without significant rain fall. This inspection should assess the moisture content of the soil and, if required sufficient quantities of water are to be applied through the irrigation system to ensure soil reached field capacity. This should be repeated every second day until the dry spell ends.
- 6.15 Trees are to be formatively pruned to remove crossing, dead and rubbing branches and to single any multiple leaders. This is a one-off operation and should be performed in the third year after planting.
- 6.16 Trees which fail to establish or become weakened, damaged or die must be replaced in the following planting season.
- 6.17 Trees should be inspected annually for the first 5 years following planting. This should be undertaken in mid-summer and any problems rectified as required.

On-going maintenance – hedge

- 6.18 All newly planted hedging should be inspected in the first few weeks after planting and after periods of frost or strong winds. The plants should be re-firmed where heave or movement has occurred, and the guying system adjusted as necessary.
- 6.19 The mulch mats or weed control fabric around the plants are to be inspected and maintained in good condition and the area they cover maintained free from weeds, grasses or other vegetation for a period of 3 years after planting.
- 6.20 At year 3 hawthorn and holly plants are to be cut back by 50% and hazel coppiced to approx. 10cm above ground level. Any ivy regrowth is to be removed from the hedge.

Schedule of Operations

Date / Stage	Operation
Prior to commencement of development	Erect protection fences around site in accordance with the tree protection plan to protect soils in planting locations. (6.2)
On completion of construction activities	Take delivery of trees and store correctly on site. (5.3) Trees to be inspected at time of delivery.
On completion of construction activities	Prepare tree planting pits. (6.4)
On completion of construction activities	Plant trees. (6.5 – 6.8)
In autumn / winter season following completion of construction activities	Undertake works to hedgerow including enrichment planting. (6.8)
Two weeks after planting	Undertake inspection of trees and check for instability. Re-firm soil and check tree ties
Three months following planting, and then every April, August and October	Check and adjust tree ties. Check mulch mat and bark chippings, make good if required
Annually every August	Inspect tree to establish if there are any health or growth problems.
August of third year	Carry out formative pruning of the tree. This should be in accordance with BS 3998 guidelines. Remove tree ties and stake, remove mulch mat.
Autumn / winter of third year following hedgerow planting	Cut- back hawthorn and holly plants by 50%, coppice hazel. (6.20)
As required during summer months	Water trees as specified. (6.11).
As required	Trees that become seriously weakened, damaged or die are to be replaced.

Inspections

- 7.1 Trees should be inspected annually until established and independent in the landscape.

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