

PLANTING SCHEME
at
86a Burton Road
Barnsley
South Yorkshire
S71 2AA

Client:
Mr S T A Cooper

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1 Introduction

1.1 Objectives of the Planting Scheme

- 1.1.1 A planting scheme has been requested by **Barnsley Metropolitan District Council** as a Condition of Planning Consent for the development of a single detached residential dwelling at **86a Burton Road, Barnsley**.
- 1.1.2 As a result, this scheme has been designed in order to:
- Mitigate for the removal of any trees to be removed on site.
 - Introduce new tree species into a site which currently does not have a significant tree population or a wide variety of species.
 - To improve the overall age class of the trees on site, thus providing long term tree cover.
 - Provide a soft landscaped area adjacent to the driveway in order to soften the hard landscaped areas.
 - To provide opportunities for wildlife including bees, insects and birds.

1.2 Terms of Reference

- 1.2.1 For the purpose of designing a planting scheme and report, I have been supplied with a proposed site plan which details the proposed scheme.

1.3 The Site and the Existing Tree Population

- 1.3.1 The site is a sloped piece of land adjacent to a residential dwelling. It is proposed to construct a single detached dwelling and to landscape the gardens.
- 1.3.2 The site has a reasonable tree cover, with the trees being situated on the west and northern boundaries.
- 1.3.3 The majority of the trees growing on site are of an early-mature and mature age. Although these trees have stature, a more staggered age class would provide the site with a longer term tree cover.
- 1.3.4 The most commonly observed species of tree on site was Goat Willow and Hawthorn.
- 1.3.5 This planting scheme will introduce trees and shrubs to create a wider species diversity, a greater age range and greater habitat value, so improving the site's visual amenity and ecological value.

2 Tree Planting Schedule

2.1 Tree Planting Position

- 2.1.1 Tree planting positions are shown on the attached plan at **Appendix 1**.
- 2.1.2 The position of the trees have been appropriately considered (rear and side garden) so that they are unlikely to conflict with other trees or structures including the driveway and house as the trees attain their mature height and spread.

2.2 Species Selection Objectives

- 2.2.1 The species have been selected for the following reasons:
- **To be in harmony with the existing trees on site and those within the surrounding area:** The species chosen are in harmony with the local landscape. Any non-native species included within the scheme, have been selected to help integrate the new planting in with the existing trees (e.g. Norway Maple) or to offer something visually different (e.g. Pink Flowering Hawthorn).
 - **To improve the amenity value of the site:** The species chosen offer a wider range of autumnal colours, attractive berries, spring flowers, interesting bark and leaves. As such, the site should be attractive throughout the seasons.
 - **To establish long term tree cover:** Norway Maple have a long life expectancy and will therefore provide the site with a longer term tree cover.
 - **To encourage and support wildlife:** Species have been selected with a known attraction or benefit to local wildlife, with the aim of enhancing the ecological value of the site. Species selected will provide flowers, fruit, berries, seeds or nuts for wildlife, as well as offer shelter and/or nesting opportunities.
 - **Safety:** Poisonous species e.g. Laburnum and Yew have been avoided, as have species which commonly drop branches e.g. Willows and Poplars.

2.3 Tree Specifications

2.3.1 The following table details the specification for all the replacement trees. Consideration is given to availability, immediate impact, ease of installation and likelihood of successful establishment.

2.3.2 Trees should be container grown and selected according to guidelines BS: 3936: Part 1: 1992 - Nursery Stock. This will ensure that all the trees are of good form and in good condition at purchase.

2.3.3 The following table details the specification for the newly planted trees:

Table 1: Individual tree planting

Botanical Name	Common Name	Size at Purchase	No. Required
<i>Acer platanoides</i>	Norway Maple	Extra Heavy Standard (14-16cm stem girth and approx. 4-4.5m in height)	2
<i>Acer campestre</i>	Field Maple	Heavy Standard (12-14cm stem girth and approx. 3-3.5m in height)	1
<i>Prunus avium</i>	Wild Cherry	Heavy Standard (12-14cm stem girth and approx. 3-3.5m in height)	1
<i>Crataegus laevigata</i>	Midland Hawthorn	Light Standard (6-8cm stem girth and approx. 2.5m in height)	1
Total			5

2.4 Tree Planting Implementation

2.4.1 Recommendations for good tree planting practice are given below:

- **Timing:** The tree planting should be implemented after the completion of the development. This will avoid damage being caused to the new trees from construction hazards, such as the re-grading of soils near roots and mechanical damage to the canopies.
- **Ground Preparation:** To increase the survival chances and establishment of the planted trees, the planting areas should first be made up using a quality soil to a depth of 900mm (300mm topsoil and 600mm subsoil).
- **Planting Holes:** Planting holes will be excavated twice the diameter of the rootball and to a depth of 200mm below the bottom of the root ball. The sides of the hole will be roughened with a spade and no-fines aggregate laid at the base of the planting pit (to a depth of 200mm) to assist with drainage.

The new trees will be offered into the holes and backfilled using the excavated soil material. Soil ameliorants such as compost should not be added as this has been shown to be detrimental to successful establishment.

To avoid possible root damage being caused to the existing trees, the planting holes will be achieved using hand tools only. No mechanical rotavation is to be undertaken in the specified tree/hedge locations.

- **Staking:** Staking will be required in order to secure the tree and prevent losses within the first years of establishment. It may be necessary to angle the stakes in order to avoid damaging the rootball. All trees are to be staked at a height of no more than 1 metre.
- **Tree Ties:** Adjustable and flexible tree ties will be used. These are to be attached at a point no more than one third of the way up the stem and with a spacer to prevent rubbing. Ties should be inspected after one year and adjusted as required. Only if establishment is particularly slow should stakes remain in place longer than three growing seasons.
- **Mulching:** A 1m diameter of bark mulch will be applied around each tree stem to a depth of no more than 60mm or so where a tree is being planted within a grass area. This will conserve water close to the soil surface and inhibit weed growth.
- **Tree Guards:** Tree Guards are to be incorporated around the base of each stem in order to reduce pest damage throughout the winter months and to prevent mechanical damage from e.g. strimmers and mowers. Spiral type guards are to be used, as they will reduce the risk of mammals eating and/or damaging the young bark.

- **Mycorrhizae Application:** Mycorrhizal fungus should be applied to each new tree either in the form of powder, granules or spikes. Powder and granules should be applied over the exposed roots of the transplanted tree and spread over the newly dug hole. Spikes should be pushed into the rootball once the tree has been planted. This symbiotic fungus will aid the newly planted trees in acquiring water and nutrients from the soil, and thus enhance their growth and reduce mortality.

3 Shrub Planting Schedule

3.1 Shrub Planting Positions

3.1.1 The positions of the Shrub Beds 1 and 2 are shown on the attached Site Plan at **Appendix 1**.

3.2 Species Selection

3.2.1 The species have been selected for the following reasons:

- **To improve the amenity value of the site:** A variety of species have been selected, which will provide the site with a mix of attractive floral colours and structures, as well as attractive berries throughout the year. As such, the site should be attractive throughout the seasons.
- **To encourage and support wildlife:** Some of the species selected provide berries for birds and will support a whole host of invertebrates. Native shrub species, or those (non-native) with a known attraction or benefit to local wildlife, have been selected. Species recommended by organisations such as; the Royal Society for the Protection of Birds (RSPB), Bat Conservation Trust (BCT) or Natural England (NE), have been selected, as these are considered to have a known ecological benefit. These shrubs will provide flowers, fruit and berries for wildlife throughout the year, as well as offer shelter and/or nesting opportunities.
- **Safety:** Poisonous species such as Spindle have been avoided.
- **Hardy:** Species have been selected which are hardy, will tolerate full sun and urban pollutants and are tolerant of most soil conditions.

3.3 Shrub Specifications

3.3.1 The following table details the specification for the newly planted shrubs:

Table 2: Mixed Shrub Planting Bed 1:

Botanical Name	Common Name	Size at purchase (L)	No's Required (approx.)
<i>Lavandula angustifolia</i>	Lavender	2	5
<i>Symphoricarpos albus</i>	Snowberry	2	5
<i>Ribes sanguineum</i>	Flowering Currant	2	5
<i>Forsythia x intermedia</i>	Border Forsythia	2	5
<i>Cornus sanguinea</i>	Common Dogwood	2	5
<i>Euonymus alatus</i>	Burning Bush	2	5
Total			Up to 35

Table 3: Mixed Shrub Planting Bed 2:

Botanical Name	Common Name	Size at purchase (L)	No's Required (approx.)
<i>Senecio brachyglottis</i>	Daisy Bush	2	6
<i>Viburnum tinus</i>	Laurustinus	2	6
<i>Hebe caledonia</i>	Shrubby Veronica	2	6
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	2	6
<i>Kerria japonica</i>	Japanese Kerria	2	
Total			Up to 36

3.4 Shrub Planting Implementation

3.4.1 Recommendations for good shrub planting practice are given below:

- **Site Preparation:** It is recommended that the shrub planting is implemented after the completion of the development. The shrub beds must be installed before the shrubs are planted, care should be taken during development to ensure that the soil within these beds are not contaminated with cement or other building materials.

Loosen the soil to eliminate compaction and improve drainage. If the existing topsoil is of poor quality, a fertile, freely draining soil with neutral or slightly acidic pH should be imported.

- **Planting Hole:** A planting hole will be excavated to around two and three times the diameter of the rootball and no deeper than the roots. The sides and bottom of the hole should be roughened with the spade or fork. Soil ameliorants such as compost should not be added as this has been shown to be detrimental to successful establishment.
- **Planting:** The top layers of compost should be scraped away when planting container grown plants, with the point where the roots flare out from the main stems being near the soil surface. Place the shrub in the centre of the hole and carefully refill (using the original soil) ensuring that the soil is positioned between and around all of the roots in order to eliminate any and all air pockets. Firm the soil around the shrub gently, avoiding overly compacting the soil.
- **Mulching:** Woodchip mulch should be applied across the whole shrub bed to a depth of no more than 60mm. This will conserve water close to the soil surface and inhibit weed growth
- **Positioning:** Within the mixed shrub beds, as shown at **Appendix 1**, shrubs should be staggered apart, ideally with at least 1 example of each species planted within each shrub bed.

4 Aftercare

- 4.1 All newly planted trees and shrub beds are to be thoroughly watered immediately after planting (twice within the first 48 hours) and during any prolonged periods of dry weather.
- 4.2 Once planted, trees and shrubs should be inspected on an annual basis for signs of poor condition or damage. Any trees or shrubs that die within the first 5 years after planting will be replaced with trees or shrubs of the same species and size.
- 4.3 Any trees or shrubs in a private garden will be the responsibility of the house owner in the future.
- 4.4 All tree and shrub works should be carried out between August and February, to avoid interference with the nesting bird period.
- 4.5 Any weeds found growing around the newly planted trees and shrubs should be removed, annually in subsequent years after planting. This will help with the uptake of valuable resources such as water, nutrients and light. This must be done manually without the use of herbicides.
- 4.6 Tree ties should be inspected annually, and adjusted if required. Tree ties and stakes should be removed within three years of planting unless establishment is deemed to be unusually slow.
- 4.7 New bark mulch should be applied around the base of each tree to a depth of no less than 75mm, each year for at least the first three years. This will conserve water close to the soil surface and inhibit weed growth.

Appendices

I hope that this scheme and methodology provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



.....
Charles Cocking *FdSc (Arboriculture), MA ArborA.*

3rd March 2021

For and on behalf of **JCA Ltd**

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- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

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