



**GREEN
GATE
TREES** ltd

Surveying & Consultancy



Tree planting specifications

Site Address:

Land adjacent to 261 Graig road, SA9 2NY

Produced by:

Christopher Wright Level 4 dip arb

Date:

09/08/2019 *(Revised 21st April 2021)*

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1 INTRODUCTION

1.1 Brief/Instruction

- 1.1.1 Green Gate Trees Ltd has been instructed by Chris Morgan at cwm-planning and design Ltd by email to produce Tree planting specifications.

1.2 Document scope

- 1.2.1 To provide tree planting specifications to mitigate the loss of existing tree removal.

1.3 Relevant background information

- 1.3.1 The author has previously produced a BS5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' (BS, 2012) for this site, the local planning authority have now requested a specification for the trees to be replanted.

1.4 Qualifications and experience of surveyor

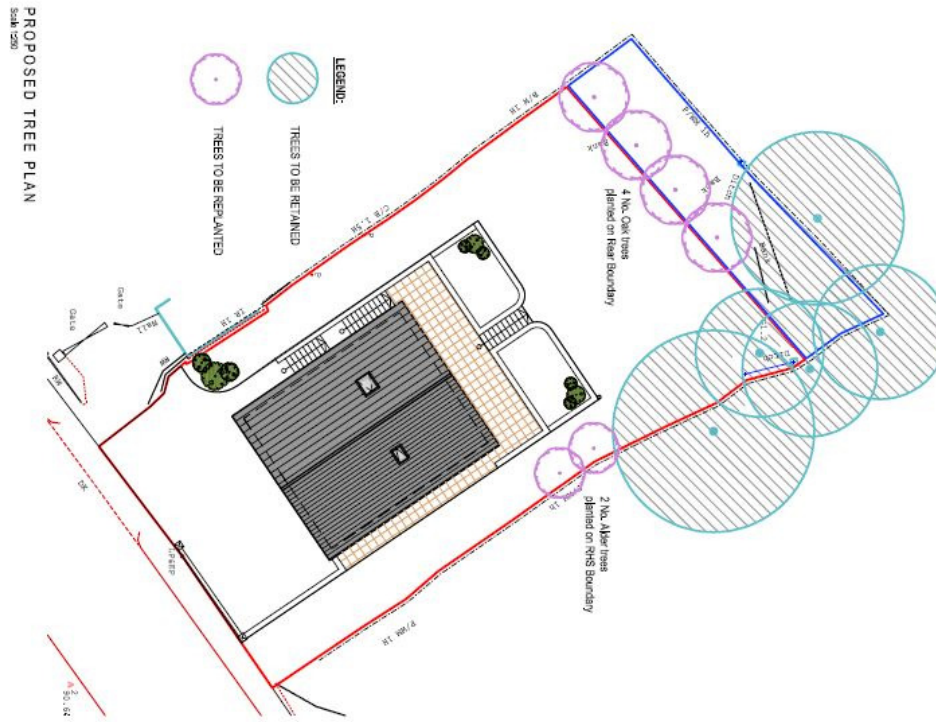
- 1.4.1 The author has worked within the arboricultural industry for the last eleven years, his career progressing from a trainee arborist in 2006 to a supervisory position prior to gaining a level 4 Diploma in Arboriculture in 2013 and becoming an arboricultural consultant. Possessing an excellent understanding of the practical elements of arboriculture and a keen interest in trees, he continues to study and attend courses to keep up to date with current regulations and industry best practice.

2 Trees to be planted

- 2.1 There are six new trees to be planted in total. Four Common Oak (*Quercus robur*) on the north west side of the site and two Common alder (*Alnus glutinosa*) on the east side of the site.
- 2.2 The size and maturity of these trees are to be a minimum of 8 – 10cm stem circumference at one meter above ground level. (*as specified in BS3936-1:1992 Nursery Stock-Part 1: Specification for trees and shrubs*)

3 New tree location plan

3.1 A more detailed image can be viewed in appendix 1



4 Tree Planting Specification

- 4.1 All whips and any transplants should preferably be bareroot stock and should be of British provenance. A certificate proving such should be provided to the Landscape Architect prior to their delivery to the site. They should be planted at 2.0 to 3.0 m centres in a random arrangement. All whips and transplants supplied to the site shall be in accordance with the Landscaping Specification and comply with current Health and Safety and CDM Regulations. All trees should be protected with rabbit-proof spiral guards and watering pipes and secured.
- 4.2 All planting is to be carried out during the next planting season (November to March, for deciduous trees) after completion of other works on site. This will avoid damage to new trees from construction hazards, such as regrading of soils near roots, or mechanical damage to tree crowns. Do not, however, plant whilst the ground is frozen or waterlogged, or in periods of persistent strong or cold winds. A landscape maintenance regime will be required to ensure inspection/monitoring of all trees and replacement of any dead or dying trees for at least three years after the initial planting. All tree and shrub planting must comply with BS 3936-1: 1992 (Nursery Stock: Specification for trees and shrubs), BS 3998:2010 (Recommendations for tree work) and 4428: 1989 (Code of Practice for general landscape operations).

- 4.3 Topsoil should be a minimum 1000 mm deep. Heavy compaction is to be avoided, to reduce root growth restriction and adhere to BS 3882: 2015(topsoil). Consolidated soils reduce the quantity of water and oxygen in the soil, and tree roots need good gaseous exchange to succeed and thrive. A build up of carbon dioxide in the soil can also cause root death. The area to be planted should therefore be rotavated to a minimum depth of 300 mm prior to planting.
- 4.4 Including a small amount of composted material will, in most cases, improve the growth rate and improve water retention in the soil during the dryer months. This may not be appropriate in all cases, so check with the supplier first. Too much compost or organic matter can slump and so reduce the planting depth. Alternatively, a wood chip mulch applied around the tree bases to a depth of at least 75 mm will also help to conserve water closer to the soil surface and discourage the growth of weeds.
- 4.5 The roots of all bareroot stock should be treated with Mycorrhizae Whip Dip (naturally occurring, soil-born, symbiotic fungus) or similar product (powder, granules or spikes), to the manufacturer's instructions. This can also be spread around the newly dug hole. The fungus will help the saplings to acquire adequate water and nutrients from the soil, which again will enhance growth and reduce the risk of failure.
- 4.6 Trees should be planted to a depth appropriate to the size of the plant stock, which should be to the same depth at which they had previously been grown in the nursery. Planting a little higher will have minimal negative effects and may help to compensate for subsequent soil settlement, but planting too deep will have long-term negative effects on a tree's health. The planting hole should be excavated by hand and should be twice the diameter of the rootball. It should have square sides, as circular holes may encourage roots to grow in a circle and possibly strangle the tree eventually. The sides of the hole should be roughened with the spade and the backfilling after the tree has been inserted should re-use the original displaced soil material.
- 4.7 It is important that all the trees are well 'heeled in' after planting and watered in during spells of dry weather. After completion of the initial planting, all plants should be irrigated with at least 20 litres of water, which will help to close up air pockets in the backfill material and make a better contact between the roots and the soil, allowing new root hairs to grow and absorb soil moisture.
- 4.8 Ideally, an irrigation/aeration system should be installed, comprising a perforated pipe (typically of 60 mm diameter) around the rootball, 100 mm below the surface. This can be fitted with a cap to stop it becoming clogged with debris.

- 4.9 No trees should be planted within 5 m of drains or services without the installation of a root barrier. The appointed Landscape Contractor will be responsible for acquiring 'as-built' drain and service plans before commencing any work on site.
- 4.10 Staking will be desirable to secure the tree, prevent leaning and reduce the risk of losses within the first few years of establishment. It may prove necessary to angle the stakes in order to avoid penetrating and damaging the rootball, but the stakes should nevertheless be placed as close to the edge of the rootball as possible.. The stakes should not be more than one metre high. A single stake will usually suffice for bare-rooted trees, but any with rootballs may need two. The trees should be attached to the stakes using adjustable, flexible ties, at a point no more than one third of the way up the tree stem. The ties should be inspected at least once each year and adjusted or replaced if required. Only if establishment is particularly slow should the stakes be left in situ for more than three growing seasons. Ideally, in year 2, the stake height should be reduced by half and the ties reaffixed accordingly.

5 Appendices

5.1 Appendix 1 013 - PROPOSED TREE RETENTION PLAN rev C