

Arboricultural Method Statement

Land east of Wandleys Lane
Walberton
West Sussex
BN18 0QR

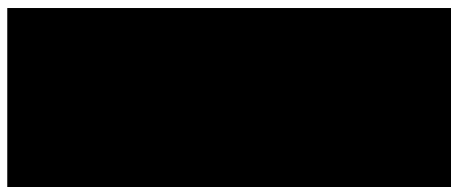
3rd October 2017



PJC ref: 4419/17-03 Rev2

This report has been prepared by
PJC Consultancy Ltd
on behalf of
Welbeck Land

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1 INTRODUCTION

1.1 In order to safeguard retained trees on site during development works it is necessary to implement a tree protection strategy. The objective of the following arboricultural method statement is to provide protection methodology for retained trees throughout the proposed development, including the above ground and below ground parts of the trees as well as their rooting medium.

1.2 This method statement is written in conjunction with arboricultural survey ref. PJC/4419/17-01 and arboricultural impact assessment ref. PJC/4419/17-02.

1.3 **Instruction:** PJC Consultancy has been instructed by Welbeck Land to provide an arboricultural method statement for proposed construction works on land east of Wandleys Lane in Walberton.

1.4 **Brief:** PJC Consultancy has been commissioned to provide an arboricultural method statement and Tree Protection Plan in accordance with guidelines set out in BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*'. This document is based on the information available on the date of the report. Updates to the method statement and Tree Protection Plan may be required following detailed design stage of development including the routing of services and formation of a construction management plan.

1.5 **Scope of this report:** This report is concerned with the protection of all retained trees at the site including trees around the curtilage with the potential to be impacted by the construction works.

1.6 **Contents of report:** This report includes the following:

- Arboricultural Method Statement
- Tree Protection Plan.

2 ARBORICULTURAL METHOD STATEMENT

2.1 **General requirements:** The arboricultural method statement and Tree Protection Plan shall remain on site for the duration of demolition, construction and landscaping works and be available to site operatives at all times. All operatives at the site shall be briefed about tree related factors as part of their site induction.

2.2 Any variation from the methodology described in this method statement shall be discussed with the supervising arboriculturalist and agreed with the local authority arboricultural officer.

2.3 **Initial tree works:** The tree removals and access facilitation pruning described in the arboricultural impact assessment shall be carried out as the first stage of development. If bonfires are lit to dispose of arising's from the vegetation or tree clearance works, an assessment of wind direction and strength shall be made to ensure flames cannot extend within 5m of any part of a retained tree. No bonfires shall be lit within a root protection area.

2.4 Tree stumps and vegetation located within the root protection areas of retained trees shall be cleared with controlled hand tools (e.g. stump grinder/brush cutter). Plant machinery shall not be used to scrape vegetation within root protection areas or access the site until the tree protection barriers have been installed.

2.5 Trees should be checked for protected species before works are undertaken. It is against the law to disturb bats or their roosts under the Conservation of Habitat and Species Regulations. Nesting birds are protected by the Wildlife and Countryside Act. If protected species are discovered, Natural England should be contacted for advice.

2.6 The tree works contractors should carry out all tree works to BS3998: 2010 '*Tree works – recommendations*' as modified by research that is more recent. They should also carry relevant, adequate and up to date insurance.

2.7 It is recommended that an Arboricultural Association approved contractor carry out all tree works. Approved contractors are expected to work to industry best standards. The Arboricultural Association website contains contact details and information on engaging a suitable contractor.

2.8 **Tree protection barriers:** The root protection areas of retained trees must be left free from disturbance, and protected from contamination or compaction during the proposed works. Protection shall comprise the formation of construction exclusion zones by the installation of tree protection fencing and temporary ground protection.

2.9 The tree protection fencing shall be installed in the locations shown on the Tree Protection Plan. The specification for fencing is included in Appendix 2. Signs shall be affixed to the fencing as shown in Appendix 3 to explain its purpose. The signs shall be affixed at a reasonable size and frequency to ensure they are easily visible to operatives at the site.

2.10 To create a usable workspace around the garages in plots 45-46, within the root protection area of T30, temporary ground protection shall be installed in the location shown on the Tree Protection Plan. The specification for ground protection shall be single thickness of scaffold boards (or equivalent boards) on a compressible layer (100mm woodchip from the initial tree works), spread across a geotextile membrane. This specification of ground protection is designed to support pedestrian loads only.

2.11 Tree protection fencing and ground protection shall be installed following the initial tree works, prior to construction traffic entering the site. They shall remain in place for the duration of construction and hard landscaping works unless otherwise stated in this report or agreed with the project arboriculturalist.

2.12 The areas protected by fencing or ground protection shall be referred to as the construction exclusion zones. The following actions shall be prohibited within the construction exclusion zones:

- Vehicular access unless on suitable ground protection by prior agreement with the project arboriculturalist.
- Regular pedestrian access unless on suitable ground protection.
- Storage of construction materials.
- Storage or handling of harmful chemicals.
- Any change in ground level unless undertaken under the supervision of the project arboriculturalist.
- Construction activities including installation of new permanent hard surfacing unless otherwise stated in this report.

2.13 **Storage and handling of harmful chemicals:** Provision needs to be made to avoid the storage and handling of harmful chemicals in proximity to trees. Harmful chemicals include fuels, oils, builder's sand (which has a high salt content) and cement. Provision shall also be made to prevent fuelling or the handling of cement from occurring in areas proposed for further planting.

2.14 Cement mixing shall only occur where there is no potential for cement washings to leech into a root protection area. A designated fuelling station for plant machinery shall be selected that is either bunded or has provision to avoid spillages leeching into a construction exclusion zone.

2.15 **Contractor facilities:** A suitable location for site cabins, contractor parking and site facilities for operatives shall be agreed with the project arboriculturalist during a pre-commencement meeting. These facilities should be located outside the root protection areas of retained trees (unless on retained tarmac surfaces). Provision must also be taken to prevent exhaust fumes or hot air from generators or kitchen facilities from damaging the canopies of retained trees.

2.16 **Demolition of existing agricultural shed adjacent to T58:** Care shall be taken when demolishing the above ground parts of the structure to avoid damaging low branches from T58. If plant machinery is required, a designated banksman must be utilised to spot overhanging branches that are not visible to the machine operator.

2.17 As far as possible, the footings of the building shall be left in situ below ground level. This will minimise the chances of encountering tree routes during the demolition operations. If it is not deemed feasible to retain the footings, care must be taken to avoid damaging the rooting medium beneath when they are removed. It is anticipated that the structure is located on a concrete raft footing, which should be broken up using controlled hand tools (e.g. pneumatic drill), and then removed from the root protection area.

2.18 If an excavator is used to carefully pull debris out of the root protection area, it must be fitted with a grading bucket (without teeth), and be operated with a designated banksman present to spot shallow roots that may not be visible to the machine operator. Plant machinery must be operated from outside the root protection area at all times (the extent of the root protection area should be marked on the ground using line marker paint or similar method). Debris shall be stockpiled outside the construction exclusion zone.

2.19 If roots are revealed when the footings are lifted, they shall not be left exposed for prolonged periods. They shall instead be covered with a layer of topsoil to prevent desiccation or frost damage. The tree protection fencing shall be reinstated as shown on the Tree Protection Plan as soon as the building is demolished and the standard restrictions to working within a construction exclusion zone shall be observed throughout.

2.20 Constructing new pavement on Wandleys Lane: Within the root protection areas of G51, G55, G57 and T58, the new pavement shall be constructed to the specification described in the arboricultural impact assessment. The detailed specification shall be provided by an engineer but shall be reviewed by the project arboriculturalist to ensure compliance with arboricultural requirements.

2.21 A level of soil stripping will be required within the root protection areas in order for the pavement to reasonably follow the level of the road. All soil stripping within the root protection areas shall occur carefully by hand (spade) or by use of air displacement equipment (airspade). The soil stripping shall occur under the supervision of the project arboriculturalist. The local authority arboricultural officer shall be notified of the timing of soil stripping so they may attend if deemed necessary. Where possible, significant roots will be lowered and retained. Where necessary, root pruning shall be assessed and undertaken by the project arboriculturalist.

2.22 Where root pruning is required, this shall be undertaken using secateurs or a sharp handsaw to leave the smallest feasible wound. Small, clean pruning wounds require less energy from the tree to heal and reduce the chance of infection from tree pathogens.

2.23 Locations for vehicular parking and storage of construction materials whilst constructing the pavement (or new crossovers onto Wandleys Lane) shall be predetermined before commencement of works. If it is not feasible for these features to be stored outside the construction exclusion zones, traffic management or provision for temporary ground protection measures (as agreed with the project arboriculturalist) shall be implemented.

2.24 Constructing new footpath to plot 36: Within area highlighted purple on the Tree Protection Plan, the new hard standing footpath to the rear garden of plot 36 shall be constructed to the specification described in the arboricultural method statement. The detailed specification shall be provided by an engineer but shall be reviewed by the project arboriculturalist to ensure compliance with arboricultural requirements.

2.25 Construction of the path will require access into the construction exclusion zone. Only pedestrian access shall be permitted into the construction exclusion zone and scaffold board pathways (or equivalent) shall be used in wet weather conditions.

2.26 Prior to construction of the footpath, the existing surface vegetation shall be removed by using either a suitable herbicide (to be provided by a specialist to ensure it does not harm retained tree roots) or by using controlled hand tools such as a spade or turf cutter. Plant machinery shall not be used within root protection areas unless supervised by the project arboriculturalist.

2.27 The path shall be installed by a process of 'rolling out' the cellular confinement system. This means that as one section of the cellular confinement system is installed, it will provide ground protection to allow the next section to be installed.

2.28 If access is required onto the cellular confinement systems before the final top surfaces are installed, a temporary sacrificial surface shall be installed above the Treetex Geotextile separation fabric to prevent soil and other building debris blocking the airspaces in the cellular confinement system, which could otherwise reduce the porosity of the completed path.

2.29 The finished level of the no-dig surface will be higher than the surrounding un-surfaced ground. To mitigate this, clean-screened topsoil may be banked around the edge of the path. It is recommended that no less than a gradient of 1:3 be used as increasing the ground level within a root protection area can disrupt root function. It is also necessary to avoid banking soil around the buttresses or buttress roots of retained trees.

2.30 Installing new permanent fencing within root protection areas: Installation of the garden fences within root protection areas will require access into the construction exclusion zones. Only pedestrian access will be permitted into the construction exclusion zone and scaffold board pathways shall be used in wet weather conditions.

2.31 The fencing specifications are to be confirmed on the date of this report. Fencing types that require only postholes (no trenching) shall be used within the root protection areas.

2.32 The postholes shall be hand excavated with care taken to avoid damaging or severing roots with a diameter greater than 25mm (potentially requiring the position of the fence posts to be altered slightly). The postholes shall be lined with impermeable sheeting before any concrete is added to prevent alkaline burn to retained trees. Cement mixing shall occur outside the construction exclusion zones.

2.33 Soft landscaping within root protection areas: New soft landscaping within the root protection areas of retained trees shall occur as the final phase of development. The final specification for soft landscaping is to be confirmed but may include turfing and tree/shrub planting within root protection areas.

2.34 Where new turf is to be laid within the root protection areas of retained trees, topsoil will likely need to be imported. The existing soil may be lightly tilled by hand but use of rotavators will be prohibited. A maximum increase of 100mm of topsoil may be introduced to avoid suffocating root growth. Care must be taken to prevent soil be piled against tree buttresses or buttress roots. When soil or other materials are transported across a root protection area, scaffold board pathways must be used to prevent compaction of the rooting medium. It should be noted that even light pedestrian use could compact the soil, particularly in wet conditions.

2.35 All planting pits within root protection areas shall be individually hand excavated (no trench planting). Care must be taken to avoid severing or damaging roots with a diameter greater than 25mm.

2.36 Arboricultural supervision: Arboricultural supervision will be required for the following stages of development:

- Prior to commencement of works, the project arboriculturalist shall review and where necessary provide input into the construction management plan. Where necessary, this arboricultural method statement and tree protection plan shall be updated to accommodate the construction management plan.
- Prior to commencement of works, the project arboriculturalist shall review the routing of new services and to provide guidance on best practice for installation where necessary.
- A pre-commencement meeting shall be held between the contractors and the project arboriculturalist. The local authority tree officer shall be given reasonable notice of the pre-commencement meeting so they may also attend if it is deemed necessary. The purpose of the pre-commencement meeting shall be:
 - 1. To clarify the tree protection methodology.
 - 2. To clearly identify the pre-commencement tree works.
 - 3. To mark out locations for the tree protection barriers.
 - 4. To discuss the phasing of works.
 - 5. To agree locations for contractor facilities.
- To sign off that the pre-commencement tree works have been completed in full and as specified.
- To sign off that the tree protection barriers have been installed in the correct locations and to the agreed specification.
- To ensure the prescribed methodology is followed for constructing the no-dig footpath adjacent to trees T36 and T39.
- To supervise all excavation within the root protection areas of G51, G55, G57 and T58 for the pavement on Wandleys Lane.

2.37 If significant root growth is disturbed during construction activities that are not within the scope of this report, the work shall cease until the project arboriculturalist has been consulted. Roots greater than 25mm in diameter or dense/matted fibrous roots shall be considered significant root growth. It should be remembered that whilst root protection areas are part of industry best practice, tree root growth is influenced by a number of factors and may not conform to expected ideals.

2.38 If at anytime during the construction process, damage is inadvertently caused to a tree, the project arboriculturalist shall be notified to assess the likely implications and to prescribe potential remedial measures to be implemented. Damage can be in the form of chemical or fuel spillage, mechanical damage to either the above ground parts of the tree or the roots, fire or any other unforeseen circumstance.

2.39 The supervising arboriculturalist shall be appointed by the contractor. It will be necessary for the arboriculturalist to report to the local planning authority on the outcome of the site visits as well as any unforeseen tree related issues.

Contact details

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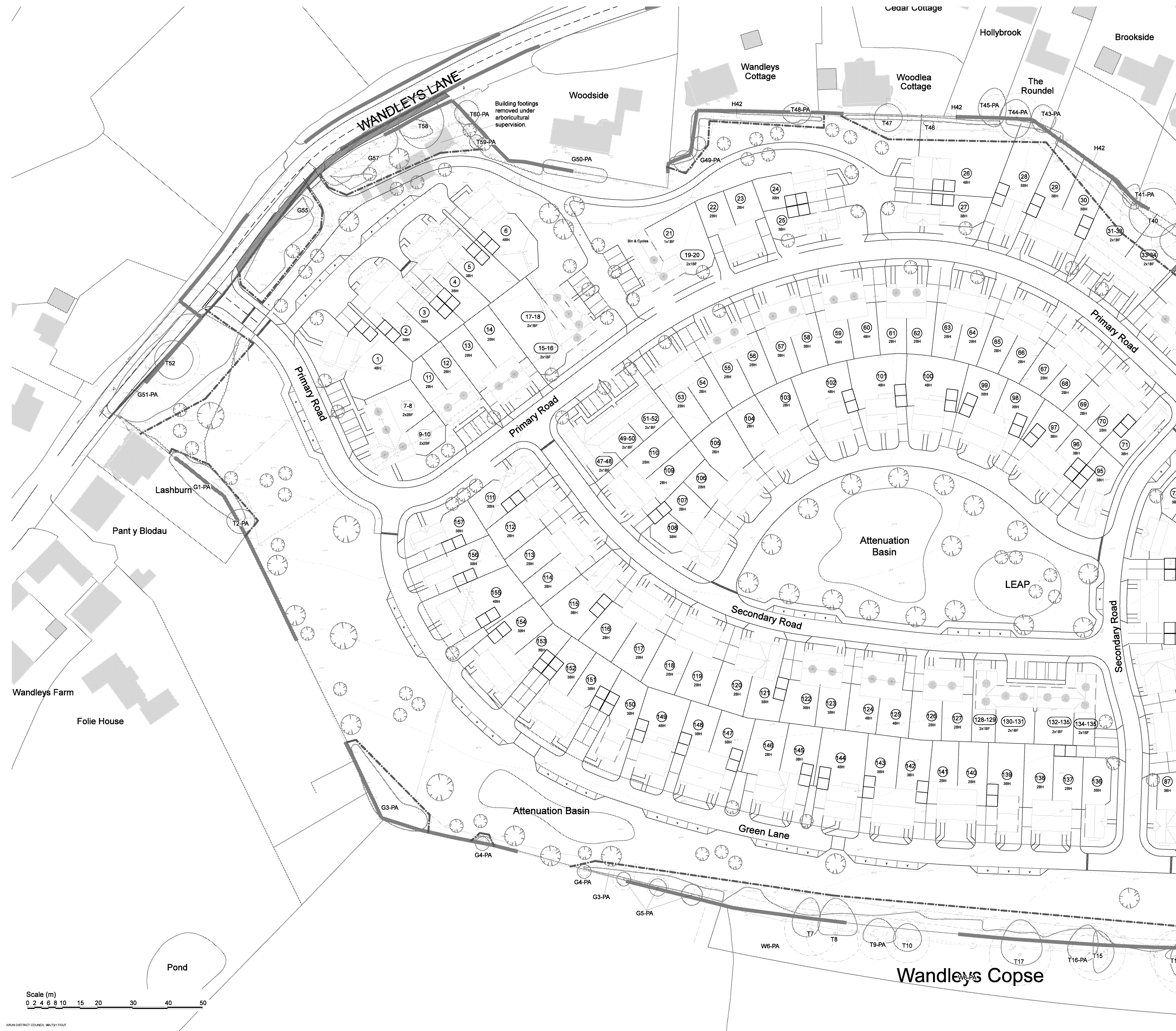


Author: Peter Davies

Date: 3rd October 2017

APPENDIX 1

Tree Protection Plan



Key:

- RPA for tree to be retained
- Canopy of tree to be retained
- Tree protection fencing
- Temporary ground protection
- Construction exclusion zone
- New permanent surfacing within RPAs

Appendix 2, (Tree Survey Schedule) contained within the arboricultural report ref. no. PJC/4419/17-02 contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

Drawing no: PJC/4419/17/C Rev: 01 Sheet number: 1 of 2

Client and site:
Welbeck Land

Land east of Wandleys Lane
Walberton
West Sussex

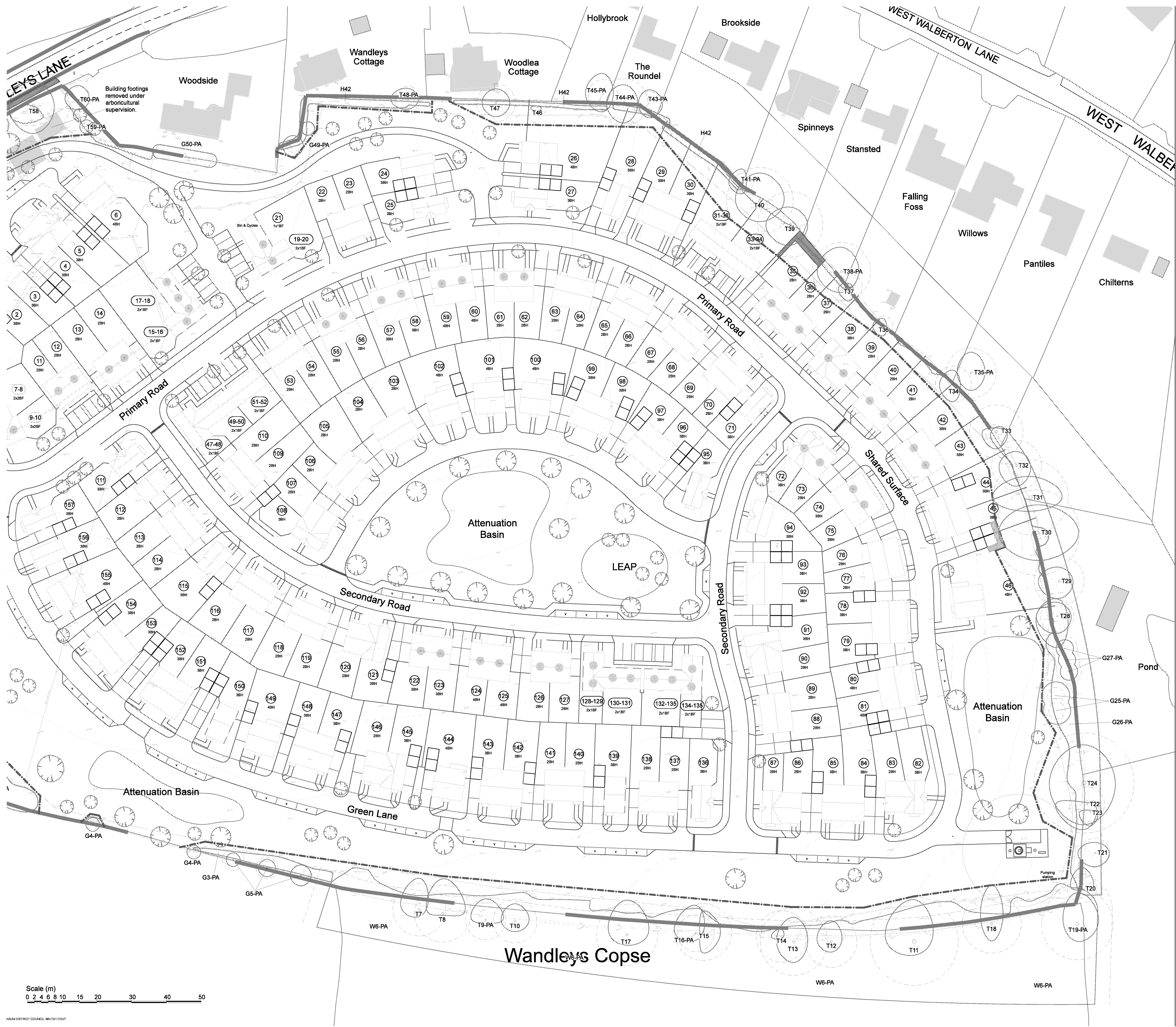
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Date drawn: 03/10/2017

Scale: 1:500 at A1

Drawn by: PD

Checked by: NB



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Tree numbers suffixed with PA indicate the tree position is approximate.

Drawing no: PJC/4419/17/C Rev: 01 Sheet number: 2 of 2

Client and site:
Welbeck Land

Land east of Wandleys Lane
Walberton
West Sussex

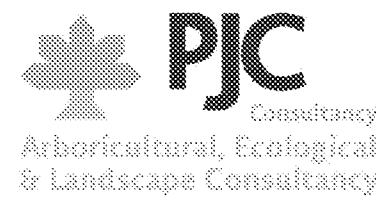
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Date drawn: 03/10/2017

Scale: 1:500 at A1

Drawn by: PD

Checked by: NB

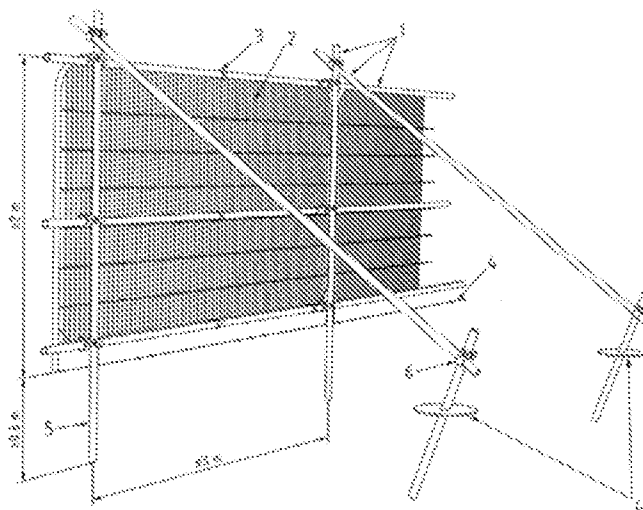


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Scale (m)
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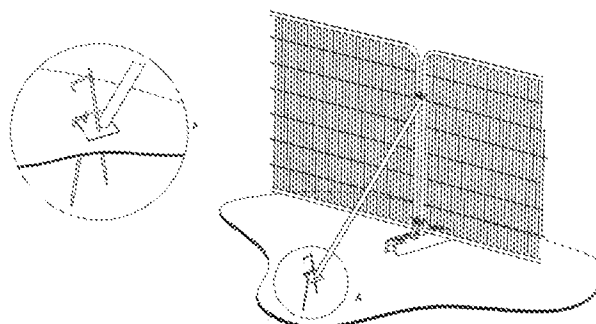
APPENDIX 2

Tree Protection Fencing Specification

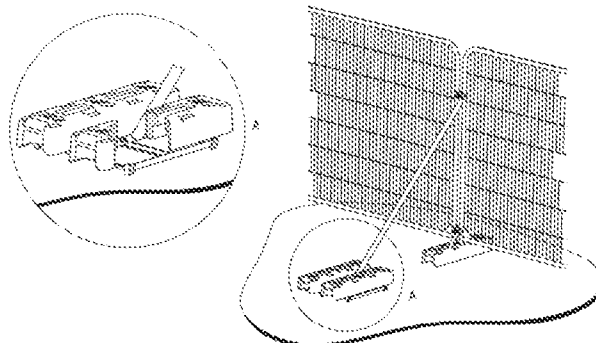


Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m tall galvanized iron and welded mesh (3) panels
- 3 Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.5 m)
- 6 Standard scaffold clamps



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

APPENDIX 3

Example Protective Fencing Signs

