



## Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP)

An Arboricultural Method Statement and Tree Protection Plan derived from the Arboricultural Implication Assessment.

2 Gog Magog Way  
Stapleford,  
Cambridge  
CB22 5BQ

Ref No: 230302

Client:	Mr & Mrs Trower 2 Gog Magog Way Stapleford Cams CB22 5BQ
Date instructed:	February 2023
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Documents referenced:	Tree Survey and Tree Constraints Plan Ref. 220302 Arboricultural Implication Assessment Ref. 230302
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Date completed:	March 2023

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Attachment – Tree Protection Plan – Ref. 220302\_v3

# 1: Introduction

## 1.1 Aspects dealt with within this Method Statement:

The Arboricultural Method Statement (AMS) is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree identified as suitable to be retained.

The AMS takes into consideration construction operations undertaken in the vicinity of the trees. It will deal with such issues as site access, intensity of construction activity, space needed for works, location of materials and location of service runs.

This AMS includes with it a Tree Protection Plan (TPP). The TPP outlines trees to be retained, removed, preliminary location of barriers and type of barrier to be installed. This method statement contains a timetable indicating when and how specific works adjacent to trees should be carried out

## 1.2 Aspects not dealt with within this Method Statement

Please also refer to Appendix 2.

This report does not deal with issues relating to Subsidence or Heave either as a result of retention or removal of trees. It does not consider the water demands of the trees present to enable decisions as to foundation type and depth. It is considered that such considerations are best dealt with in a different report having liaised with the structural engineer.

# 2. Background Information

## 2.1 Names and Contact numbers of Parties concerned

Contact Name	Company/ Organisation	Role	Contact details
TBC	Cowper Griffith Architects LLP	Architect	<a href="mailto:architects@cowpergriffith.co.uk">architects@cowpergriffith.co.uk</a> 01223 835998
TBC	TBC	Contractor	TBC
David Riley	Writtle Forest Consultancy Ltd	Arboricultural Consultant	<a href="mailto:david@writtleforest.co.uk">david@writtleforest.co.uk</a> 01277 355970
Joanna Davies	Cambridge City Council	Local Authority Tree Officer	01223 458526

## 2.2 Availability of this Method Statement

The Site Manager and appointed Contractor will each hold a copy of the document, including the Tree Protection Plan. Copies of this document will be made available for contractors visiting site.

## 3: Supervision and Monitoring

### 3.1 Monitoring and Supervision

Arboricultural supervisory works and monitoring visits must be confirmed by formal correspondence circulated to all relevant parties, including the council. These records of site visits will provide proof of compliance.

### 3.2 Site Management

All tree protection measures detailed in this document must be fully understood by all the parties involved in the development. Clarification or modifications to the consented details must be recorded and circulated to all parties in writing. These documents should then form the basis of any supervision arrangements between the Arboricultural Consultant and the proposer, as agreed with the Local Planning Authority where applicable.

It is the Site Manager's responsibility to ensure that the requirements set out within the Arboricultural Method Statement are known and understood by all site personnel. Copies of pertinent documents should be kept on site at all times. The site manager will brief all personnel who may have an impact on any trees and relay specific tree protection requirements.

This methodology should be a part of all site induction procedures and written into appropriate site management documents. The following pertinent points should be explained to all personnel who could have an impact on trees;

1. The specification of the Protective Barriers around retained trees.
2. The requirement for Protective Barriers to be sufficiently robust to prevent incursion by construction activity.
3. Why it is essential that the Protective Barriers remain throughout the works.
4. The importance of the 'exclusion zones' around retained trees.
5. The potential damage caused to trees and new tree planting by compaction of soils and the requirement for ground protection.

## 4: Schedule of Tree Work

### 4.1 Tree works to be carried out prior to installation of Protective Barriers

Tree Number	Species	Works required
T1	Hazel	Fell tree and grind stump to remove.
T2	Cherry	Fell tree and grind stump to remove.
T3	Holly	Fell tree and grind stump to remove.
T4	Cypress	Fell tree and grind stump to remove. <b>Note:</b> Notice of Intention to carry out work to trees in a Conservation Area previously submitted to South Cambridge District Council and they have decided not to object the removal of T4 - Cypress. Reference: 21/0814/TTCA Date of Decision: 5th August 2021
T5	Cypress	Fell tree and grind stump to remove.
T6	Cypress	Fell tree and grind stump to remove. <b>Note:</b> Notice of Intention to carry out work to trees in a Conservation Area previously submitted to South Cambridge District Council and they have decided not to object the removal of T6 - Cypress. Reference: 21/0814/TTCA Date of Decision: 5th August 2021
T7	Cherry	Fell tree and grind stump to remove.
T9	Cherry	Fell tree and grind stump to remove.
T19	Apple	Reduce the east of the crown by 1.5m and crown lift the remaining crown to the east by 2m from ground level.
T20	Prunus	Fell tree and grind stump to remove.
H1	Yew	Prune back south of canopy back to boundary line (approx. 0.5m) to allow proposed works to proceed.
H2	Cypress Hedge	Fell hedge and grind stumps to remove.

## 5: Sequence of Events

Sequence	Brief outline of events	Arboricultural input required
1	Carry out tree work as detailed in 4.1 once permission from the LPA has been granted.	Yes – Site visit to check that tree works have been completed satisfactorily.
2	Install Protective Barriers and ground protection as shown on the Tree Protection Plan (TPP).	Yes - Site visit to check adequacy and location of Protective Barriers and ground protection.
3	Demolition of existing dwelling and garage and construction of a replacement dwelling.	Yes – Arboricultural supervision required in relation to T19
4	Hard/soft landscaping including the remodelling existing pond.	Yes – Arboricultural supervision required for remodelling of existing pond.
5	Soil improvements within the RPA of T19 Apple	Yes – Arboricultural input into specification
6	Re-inspection of retained tree.	Yes - Site visit to carry out the inspection of retained tree within one month of the completion of works.

## 6. Installation of Protective Barriers & Ground Protection

The areas requiring the installation of protective barriers prior to commencement of the works are shown as of the TPP. These will be installed after completion of tree works.

The Protective Barriers may only be removed once all build works are complete

Ground Protection to be installed within the RPA's of retained trees. This is to ensure there is no compaction or rutting of soils within the RPA whilst maintaining access for construction.

### 6.1 Arboricultural Consultant Role

1. Review trees, post tree works to check that the works have been completed satisfactorily.
2. Review Protective Barriers and Ground Protection to ensure they are installed satisfactorily.

## 7: Demolition of existing dwelling and garage and construction of a replacement dwelling.

### 7.1 Methodology for the demolition of existing dwelling and garage and construction of a replacement dwelling.

1. Machinery used for demolition of existing dwelling and garage is to be of smallest dimensions suitable for the operation.
2. The machinery must be located within footprint of the existing dwelling, such that the walls will be pulled inwards and away from the tree using 'top down pull-back' method.
3. Existing hard-standing is to be retained throughout demolition to act as ground protection.
4. Where possible the existing foundations supporting the walls located within the RPA of T19 will be utilised if practical. This will remove the requirement for excavation and prevent damage to roots.
5. If existing foundations are not utilised, removal of existing foundations within the RPA to be carried out under Arboricultural supervision.
6. The foundations are to be broken out and collapsed inwards away from the trees and any roots that may be growing against them.
7. Excavations required for the foundation for the proposed dwelling to be carried out by hand tools only within the RPA.
8. Roots encountered are to be pruned back to growth point if possible using a sharp tool such as secateurs. If significant sized roots (>25mm diameter) or significant roots mass are encountered they will be recorded to inform future management of the tree.
9. If pruned roots are to be left exposed for a period of longer than 1 hour (or dependent on weather conditions), then a covering of dampened Hessian or similar material is to be used to cover the exposed roots.
10. Back fill around severed roots to include a soil mixture of Biochar, Phosphites and P4 Hydrogel crystals to promote healthy root growth and development.

### 7.2 Arboricultural Consultant Role

1. Oversee removal of existing foundation if required within the RPA of T19 Apple.
2. Oversee the excavations within the RPA of T13 Horse Chestnut Arboriculturist to record significant sized roots (>25mm diameter) or significant roots mass pruned to inform future management of the tree.
3. If the Arboriculturist considers the tree to be significantly effected due to amount of root loss the tree may need removing (or replanting). If removed a suitable replacement tree will need to be planted.

## 8. Installation of New Drainage

### 8.1 Methodology for installation of Brick-slot and French Drain at T19

1. Installation of proposed Brick Slot or French Drain to be carried out by hand tools only within the RPA.
2. Roots encountered are to be pruned back to growth point if possible, using a sharp tool such as secateurs. If significant sized roots (>25mm diameter) or significant root masses are encountered these will be recorded to inform future management of the tree.
3. If pruned roots are to be left exposed for a period of longer than 1 hour (or dependent on weather conditions), then a covering of dampened Hessian or similar material is to be used to cover the exposed roots.
4. Back fill around severed roots to include a soil mixture of Biochar, Phosphites and P4 Hydrogel crystals to promote healthy root growth and development.

### 8.2 Arboricultural Consultant Role

1. Oversee the excavations within the RPA of T19 Apple. Arboriculturist to record significant sized roots (>25mm diameter) or significant roots mass pruned to inform future management of the tree.

## 9: Installation of Permeable and Impermeable Paving

### 9.1 Methodology for installation of Paving

1. Any pre-existing sub-base layers beneath existing surface are to be retained in-situ. Loose concrete/ hardcore is to be removed by hand using a shovel or rake.
2. Proposed new paving to utilise existing sub-base to remove requirement for excavations and potential damage to roots.
3. If new proposed paving is to be installed within soft ground, it is to be installed without excavation, using a no-dig 3d cellular confinement system, removing requirement to lower soil levels in the RPA. This relates to T19 and T8.

### 9.2 Generic method statement for the installation of a cellular confinement system

1. Any surface vegetation is to be treated with a suitable herbicide to manufacturers guidelines to avoid damage to trees.
2. Once allowed to die off, strip back the surface vegetation using an air-spade or hand tools, such as a rake or shovel.
3. Remove dead organic material from the site; ensure that stones and loose soil are removed from the driveway footprint.
4. Hollows should be filled to a common level with an inert granular material such as sharp sand.
5. Lay a semi permeable geo-textile matting (such as Terram or Fibertex) across the whole area of the area to be installed. (This will prevent the intrusion of roots into the sub-base whilst allowing drainage, nutrient and gaseous exchange). A gap of at least 100mm is to be left between the cellular confinement system and the main stem to allow for future growth.
6. Lay a cellular confinement system such as "Cellweb" TRP of appropriate thickness to support the intended load. Commonly Cellweb thickness for cars and small vans is 100 – 150mm. Appropriate thickness will be determined by load bearing required (This in turn may require CBR testing of the soils).
7. The access road edging to contain the cellular confinement system is of softwood boarding, of appropriate dimensions, e.g 100 by 20mm tanalised boarding and 150-200mm long soft

wood pegs driven into the ground at approximately 1500mm spacings, or a proprietary edging system (these can usually be obtained as part of a “system” with one of the above types). Consult with product specifications prior to installation..

8. Conventional kerbing founded on concrete haunching poured into excavated trenches will not be used within the RPA.
9. Using hand shovels, working from the edge of the new surface furthest from any tree RPA, carefully push 4- 20mm angular stone chippings (No Fines) into the Cellular confinement system to form an aggregate sub-base bound by the containment system.
10. Compact the sub-base to ensure binding with the cellular confinement system and minimize future rutting. (Check with product specification and install requirements).
11. Lay the second layer of Geo-Textile separation matting across the full width of the driveway surface; this will prevent the intrusion of fines into the gravel chippings. Where a grass surface is desired over the sub -base the geotextile matting should be replaced with a fine plastic net covered with soil.
12. Add layer of no fines, sharp sand and compact if using pavers. Where block paving is used, blocks should be of a design having side tabs that allows wide permeable coarse sand grouting to be used, allowing subsurface gas/air exchange through the final surface.
13. Grading up to the path from the lawn should be minimal and achieved by installing an inert granular material such as sharp sand and topsoil mix. Levels should not be raised in excess of 50mm within RPA.

### Arboricultural Consultant Role

No Arboricultural Supervision required.

## 10: Remodelling of existing pond

### 10.1 Methodology for the remodelling of existing pond

1. Excavations required for the remodelling of the pond to be carried out by hand tools only within the RPA.
2. Roots encountered are to be pruned back to growth point if possible using a sharp tool such as secateurs.
3. Significant sized roots (>25mm diameter) or significant roots mass pruned are to be recorded to inform future management of the tree.
4. If pruned roosts are to be left exposed for a period of longer than 1 hour (dependent on weather conditions), then a covering of dampened Hessian or similar material is to be used to cover the exposed roots.
5. Back fill around severed roots to include a soil mixture of Biochar, Phosphites and P4 Hydrogel crystals to promote healthy root growth and development.

### Arboricultural Consultant Role

1. Oversee the excavations within the RPA of T13 Horse Chestnut.
2. Arboriculturist to record significant sized roots (>25mm diameter) or significant roots mass pruned to inform future management of the tree.
3. If the Arboriculturist considers the tree to be significant effected due to root loss work is to stop and footprint of pond to be revised.



## Appendix 1: General Site Conditions and Tree Protection Measures

### Storage of Materials

Designated areas for storage of materials and site office will be decided by the Site Manager before any works can commence. Suggested suitable areas are marked out on the Tree Protection Plan (TPP). It is advisable to consult with the Arboriculturist if the storage areas or site office deviates from that area as outlined by the TPP.

### Discharge of Contaminants

No materials that are likely to have an adverse effect on tree health, such as oil, bitumen or cement will be discharged within the RPA of any of the trees to be retained. It is advised that the disposal of all waste materials is carried out in an appropriately sustainable fashion.

### Contingency Plans

Should there be any contamination of soils either within or adjacent to the RPA these must be dealt with as quickly as possible with a proprietary emergency clean up kit. The situation should then be assessed as to whether it is appropriate to remove soils. An Arboriculturist must be consulted before a decision is made. The protection barriers erected should be able to be removed relatively easily to access the area in event of an emergency.

### Access to the area of proposed works

Main access to the site is understood to be from Gog Magog. It is considered that this would be the only access point into the site for the purposes of carrying out the development as proposed. If there are any other proposed access points into the site, this must be agreed prior to use with the Arboriculturist.

### Cranes and Lifting Equipment

All lifting equipment, including cranes if utilised, must be so positioned that they operate without contact with the retained trees. Care must be taken so that the arc of the boom fitted to the lifting equipment is sufficiently clear of the retained trees.

### Boundaries/ Scope of the Site

The appointed Arboricultural Supervisor must be consulted if the boundaries of the site are extended or if excavations/ storage/ construction related to this development is to be carried out on other parts of the wider area, outside of the development site as indicated on the Tree Protection Plan.

## Appendix 2: Protective Barriers

Before the commencement of any works on site (other than those set out in the schedule of tree works, contained in this document), protective vertical barriers must be erected. The location of the barriers is illustrated on the Tree Protection Plan.

The barriers are to be erected to exclude construction activity in the RPAs of retained trees and to protect soils in areas designated to receive new replacement tree plantings.

The barriers will remain in place until completion of the main construction phase and then only removed with the agreement of the consulting Arboriculturist.

Other than works detailed within this method statement or approved in writing by the local planning authority, no works shall take place within the exclusion zones defined by the protective fencing. No vehicles will be allowed to enter areas to be protected by the barriers.

### Specification of Protective Barriers

The barriers should be fit for purpose of excluding construction activity. At this site, it is considered sufficient to install two-metre-tall welded mesh or solid panels on concrete feet (please refer to figures 1a and 1b). The panels (Heras type) should be joined together using a minimum of two anti-tamper couplers and installed so they can only be removed from the inside. The distance between the couplers should be at least 1 metre and should be uniform throughout the protective barrier.

The panels should be supported on the inner side by angled stabilizer struts installed every 3.5 metres at the join of the Heras panels. Both the concrete feet and the stabiliser strut base plates should be secured with ground pins. Where barriers are to be erected on retained hard surfaces or it is otherwise unfeasible to use ground pins stabilizer struts should be mounted on a block tray.

The specification of the temporary barriers will be installed in accordance with the specification as discussed in the paragraph above and referenced in figures 1a and 1b.

Notices will be affixed to all protective fencing 'Construction exclusion zone - Keep Out' (please refer to figure 2).

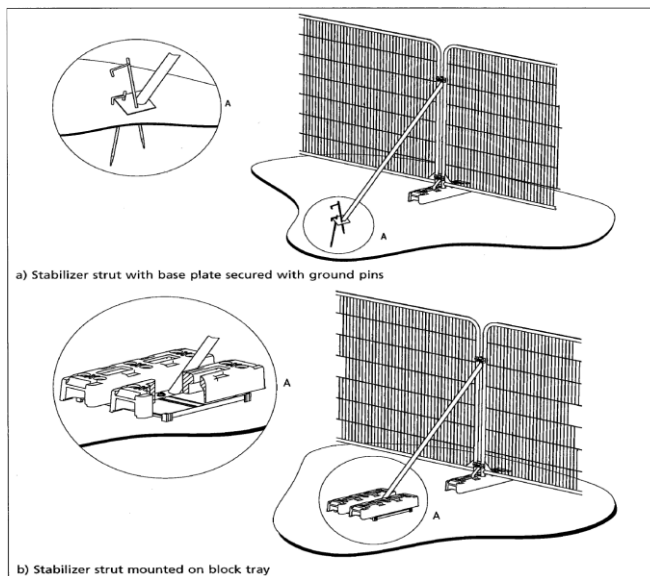


Figure 1a and 1b - Diagram of protective barrier taken from BS 5837 (2012)



Figure 2 - Example of suitable warning sign affixed to protective barrier

## Appendix 3: Installation of Ground Protection

Due to the need for construction access, it will be necessary to install ground protection to prevent compaction within the RPAs of retained trees. Ground Protection will be installed in areas as indicated on the TPP according to the level of use, as follows.

Lay an impermeable geo-textile matting directly onto the soft ground, onto which will be installed a layer 150 millimetres thick of a compressible material such as woodchip, capped with a finished surface of interlinked ply-board sheets or proprietary ground protection boards.



Figure 3 – Example – ‘Ground Guard’

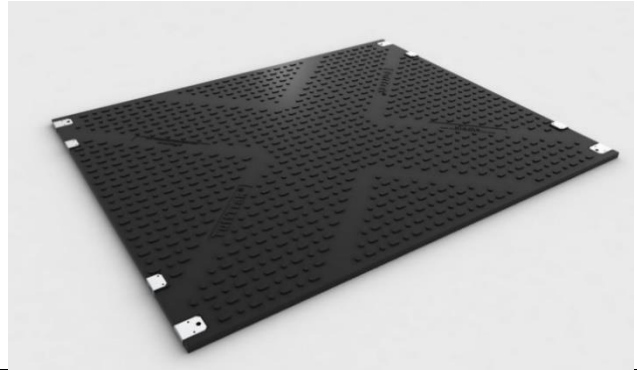


Figure 4 – Example –TuffTrack

## Appendix 4: Example of Cellular Confinement System

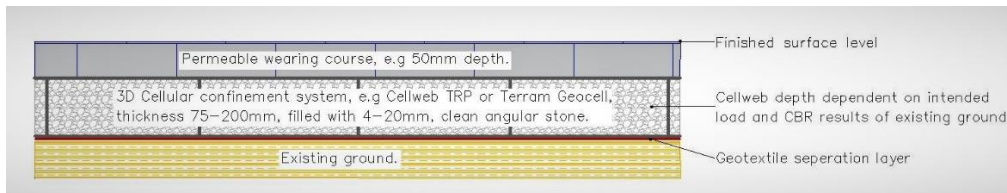


Figure 2 - Typical cross-section through 3-d cellular confinement system.



Figure 3 - Example 3-d cellular confinement system prior to installation of stone.

## Appendix 5: Limitations of Arboricultural Method Statement

### Limitations of the Report

Please also refer to sections 1.2 and 1.3 at the beginning of this report.

- The report is based on information provided by third parties and the specifications and recommendations is dependent upon information provided therein.
- This report does not consider the possible implications to any present or future built structures other than those considered within the report.

### Findings of the Survey and the Report

- Validity, accuracy and findings of the report will directly relate to the accuracy of information provided at the time of the tree survey.

### Timing of the Survey and the Report

- The considerations/ findings in this method statement are valid for one year.
- Such considerations/ findings will become invalid if any building works are undertaken, soil levels are altered or tree work undertaken outside of the scope of works as detailed and presented at the time of compiling this report.
- If there are any alterations to either the property or soil levels, or if tree works are carried out, it is recommended that a new tree report is undertaken.

### Trees in relation to other Properties:

- This report/survey only considers the trees in relation to the site as identified.
- It does not comment on possible effects of trees on neighbouring properties, including in relation to subsidence or heave, or with regard to possible hazards presented by trees surveyed.
- Neighbouring owners of trees that are identified as posing a possible risk to the property/site in question should seek their own advice as to possible effects of the recommendations given within this report.
- Damage to, or possibility of damage to, any other structure that is not referred to within the report is not considered unless otherwise specified. This includes both neighbouring structures and any other structure on the property.

### Trees in Relation to Subsidence, Heave and Direct damage

- This report does not deal with issues relating to subsidence or heave in relation to any built structures and surrounding vegetation whether the structure or vegetation falls within the boundaries as considered or lies beyond the boundaries.
- The report does not consider issues relating to subsidence or heave in relation to any proposed built structures or future vegetation whether within the boundaries as considered or beyond the boundaries
- It is prudent to consider the effects of heave on any property if trees are removed.
- Similarly, the issue of direct damage (when the roots of a tree have physical contact with a structure) is not considered within this report.

### Trees subject to statutory controls:

- If the trees are covered by a Tree Preservation Order or are located in a conservation area it will be necessary to consult the local authority before any pruning works, other than certain exemptions, can be carried out.
- The works specified above are necessary for reasonable management and should be acceptable to the local authority. However, tree owners should appreciate that the local authority may take an alternative point of view and have the option to refuse consent.

### Trees are subject to changes outside man's control:

- Trees are living organisms subject to changes outside man's control. Trees and environment alter with the seasons it is as well to inspect trees whilst in full leaf and when out of leaf.
- If there are any harsh or unexpected weather conditions, or heavy storms it is also prudent to inspect trees.
- Changes to ground water conditions will affect the root growth of a tree. Such changes are not always the result of man's influence and other factors may be involved.

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