



Arboricultural Method Statement

The Cottage,
Highground Lane,
Barnham,
West Sussex,
PO22 0BT.

Client: Mr & Mrs Akmenkalns

Date: April 2021

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1. Introduction

- 1.1 This arboricultural method statement ('AMS') details the actions to be taken in order to prevent unacceptable damage being caused to the retained trees on this site during the proposed construction of a new dwelling at The Cottage, Highground Lane, Barnham, West Sussex, PO22 0BT.
- 1.2 This AMS complies with the recommendations of British Standard BS 5837: 2012, *Trees in relation to design, demolition and construction – Recommendations* ('BS 5837'). It is designed to reflect the principles of the tree protection required for the proposed development, and should not be read as a definitive engineering or construction statement for this site. If required, matters relating to the construction detail or engineering performance of any protective measures specified should be referred to a qualified architect or structural engineer, for further information and specification which may be necessary for their practical implementation in a manner that satisfactorily ensures their protective intention or function.
- 1.3 The AMS should be read in conjunction with, and is to be considered an essential part of, the tree protection plan ('TPP') which is attached to it at **Appendix 2**.

2. Pre-start requirements, liaison & communication

- 2.1 Before any works of any description take place on the site, the applicant, landowner or promoter of the proposed development ('the developer') shall appoint a suitably qualified arboricultural consultant to act as the supervising arboriculturist for the project, in order to ensure that the specified tree protection measures are carried out during the entire construction process. Confirmation of this appointment, and details of the supervising arboriculturist appointed, shall be provided to the Local Planning Authority ('LPA') before any works commence.
- 2.2 Before any works commence on site, the developer shall convene a pre-start meeting. This should be attended by the developer or project manager, the site manager, the groundwork contractor, and the supervising arboriculturist and, if so required by the LPA, the LPA tree officer. The meeting will be led by the supervising arboriculturist, who will ensure that the sequence and methods of tree protection specified in this statement are fully explained and understood by all parties. Reporting procedures, arboricultural supervision requirements, and frequency of monitoring visits (as detailed in **Section 10** and *Table 2* of this AMS) will be discussed and agreed, and relevant contact details exchanged. Any modifications to this statement arising from this meeting will be recorded and the revisions circulated to all parties.
- 2.3 The developer shall inform the supervising arboriculturist if at any time during the construction process, the site manager is replaced. In this event, the supervising

arboriculturist will, within 5 days, arrange a meeting with the new site manager to review all remaining or outstanding aspects of this method statement.

- 2.4 A copy of this method statement, together with the TPP, shall be given to all personnel who have control over works of any nature within the root protection areas (RPAs) of the trees which are to be retained. The developer will ensure that adequate instruction is given for the implementation of the protection measures outlined within this statement.

3. Tree removals and pruning

- 3.1 The trees listed in *Table 1* below shall be felled to ground level; stumps shall either be ground out to 450mm below ground level, or excavated (grubbed out), as specified.
- 3.2 Some pruning of the retained trees is required to permit construction of the proposed development. The relevant trees, and the required pruning works, are also listed in the table below.
- 3.3 Tree felling and pruning will be carried out in accordance with British Standard BS 3998: 2010, *Tree work - Recommendations*.

Tree no.	Species	Height	BS Category	Work required	Reason for work
5	Stawberry Tree	4m	U	Fell to ground level.	Dead/Dying
7	Pittosporum	5m	C	Fell to ground level.	Proximity to proposed building.
8	Flowering Cherry	2m	C	Fell to ground level.	Proximity to proposed building.
9	Laurel	3m	C	Prune back canopy on W side to give 1.5m clearance from proposed building.	To provide clearance from proposed building but also to maintain screening along boundary.

Table 1 – Tree removals and pruning

4. Protective fencing

- 4.1 No vehicles of any kind shall enter the site, nor any works commence, until the root protection areas of the retained trees, as shown on the TPP, have been protected by the erection of protective fencing to the specification found in BS 5837, Section 6.2. The location of the fencing is denoted by the continuous bold purple lines on the TPP.
- 4.2 The protective fencing shall be at least 2.1m in height and comprise standard ‘Heras’ welded mesh fence panels mounted on rubber or concrete feet. The panels shall be fixed to each other with at least two anti-tamper clamps, installed so that they can only be removed from inside the fence.

- 4.3 The fencing shall be supported on the side closest to the retained trees by stabiliser struts braced to the ground at an angle of 45 degrees, and attached to a base plate secured to the ground with ground pins. Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabiliser struts should be mounted on a block tray. Notices stating “*Tree Protection Zone – Keep Out*” will be attached with cable ties to every other panel.
- 4.4 No activity of any kind shall be undertaken behind the protective fencing; there shall be no topsoil stripping, no storage of materials, no access for vehicles or personnel, and no excavation or changes in soil level of any kind.
- 4.5 Areas for storing or mixing of fuels, oils or cement shall be agreed at the pre-start meeting. None of these areas shall be within the area behind the protective fencing, and where possible shall not be within 10m of any retained tree.
- 4.6 No fixtures of any nature shall be attached to the retained trees, and no fires shall be lit in any position where heat could affect their foliage or branches.
- 4.7 When the installation of the protective fencing is complete, the supervising arboriculturist shall be informed so that they may come and inspect it. If it complies with this statement, the supervising arboriculturist will record the fact and notify the client and LPA.
- 4.8 If the protective fencing is accidentally damaged or knocked over, the damaged sections shall be immediately marked with high visibility tape or with mesh fencing. The damaged sections shall be replaced or repaired to the original specification within 48 hours. All events of this nature must be recorded and reported to the supervising arboriculturist.
- 4.9 The protective fencing will not be moved, dismantled or relocated without the prior approval of the supervising arboriculturist. When the construction period is complete the fencing may then be removed, but only after first informing the supervising arboriculturist of this intention.

5. Ground protection

- 5.1 Where the setting back of the protective fencing in order to provide construction working space results in unmade ground within the RPAs of retained trees being exposed to construction damage, temporary ground protection shall be put in place for the duration of the construction period, in the locations denoted by magenta hatching on the TPP. In order to protect the structure of the soil adjacent to the areas of construction, the ground protection should be capable of supporting any traffic, pedestrian or mechanical, entering or using the relevant areas without being distorted or causing compaction of underlying soil.
- 5.2 The ground protection shall comprise a single thickness of scaffold boards placed either on top of a driven scaffolding frame, so as to form a suspended walkway, or on top of a

compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane, to accommodate pedestrian activity only.

- 5.3 The ground protection shall be installed in the specified locations at the same time as the erection of the protective fencing, prior to any works commencing on the site. When its installation is complete, the supervising arboriculturist shall be informed so that they may come and inspect it. If it complies with this statement the supervising arboriculturist will record the fact and notify the client and LPA.
- 5.4 If, during the course of construction operations, it becomes known that the specification of the installed ground protection in any location will be insufficient to accommodate the loadings to which it will unavoidably be subjected, it shall be replaced or upgraded to a more robust specification immediately, in accordance with BS 5837 recommendations and with the advice of the supervising arboriculturist, before any further works in the relevant areas proceed.
- 5.5 The ground protection shall be retained in place for the duration of the demolition and construction operations, and shall not be removed until all works are completed, and all equipment and materials have been removed from the site.

6. Supervised excavations

- 6.1 Where denoted by bold orange lines on the TPP, the formation edges of new areas of hard surfacing shall be undertaken under direct on-site arboricultural supervision. The first 750mm depth of the excavation (or the required depth if this is less than 750mm) shall be excavated using hand tools only, assisted with an airspade (a compressor-powered compressed air lance), if so required by the Local Planning Authority or supervising arboriculturist.
- 6.2 For formation edges of new hard surfacing, any roots found with a diameter of less than 25mm shall be cleanly severed by the supervising arboriculturist. If any roots of 25mm diameter and above are found, they shall initially be covered and protected by damp hessian. The supervising arboriculturist shall then decide if it is necessary to retain them. If not, then shall be cleanly severed. If removal of such roots is not feasible, they shall be wrapped with a 50:50 mixture of topsoil and clean sharp sand with a minimum thickness of 50mm, encased in polythene and incorporated into the kerb structure. The wrapping shall take into account the potential for future growth and make provision for expansion of the roots' diameter.
- 6.3 Where excavation below 750mm depth is required, this may be undertaken by machine, provided that it is carried out under direct on-site arboricultural supervision, and the machinery is stationed and operated either outside the RPAs of retained trees, or on existing hard surfacing, or on suitable ground protection, and there is adequate clearance from the crowns of retained trees.

7. Construction of hard surfaces (no dig)

- 7.1 Where denoted by red honeycomb hatch on the TPP, the proposed driveway/parking bays within the RPAs of retained trees shall be constructed to the specification detailed below, in accordance with the recommendations of Section 7.4 of BS 5837.
- 7.2 Where possible, this construction should be undertaken prior to the commencement of any other construction works (other than the erection of protective fencing and installation of ground protection). If this is not feasible, the relevant area shall be protected from construction traffic, construction operations or soil compaction, either by being fenced off by protective fencing, or by suitable temporary ground protection, in accordance with the specifications earlier in this method statement, for the duration of the construction period up until the time when construction of the relevant areas is able to proceed.
- 7.3 The proposed driveway/parking bays shall be clearly marked out before any associated work starts. Existing vegetation may be removed with hand tools or sprayed with an approved non-residual herbicide.
- 7.4 Any small hollows may be filled with clean sharp sand (not builders' sand) to a maximum depth of 100mm. A permeable geotextile membrane (such as 'Terram') shall be laid down prior to the installation of a cellular confinement system.
- 7.5 The ground shall be covered with a perforated cellular confinement system such as 'Geoweb' or 'Cellweb' with a minimum cell depth of 150mm for the access driveway. The cellular confinement material shall be fixed in place over the required area using steel pins at its edges, before being backfilled with clean, no-fines angular aggregate (20mm-40mm).
- 7.6 Vehicles or machinery used in the process of depositing or spreading the aggregate backfill shall not travel over, or work from, unprotected ground within the RPA of any retained trees. Subject to the depth of the cellular confinement system being adequate to support the loadings, vehicles (such as dumpers or power barrows) may travel over the completed areas of the cellular confinement material, provided that these are filled to their full depth.
- 7.7 Edge supports of appropriate size and strength should be set above ground level and should be secured either with steel pins driven into the ground, or with concrete haunching laid on existing ground level on an impermeable polythene membrane. The outer edge of the supports may be banked up with clean topsoil.
- 7.8 A permeable geotextile membrane will then be laid on top of the cellular confinement system to prevent fines and other debris filling the air spaces in the aggregate. The wearing course or final surface shall be of a permeable and gas porous nature such as porous tarmac or concrete setts with sand jointing.

8. Underground services

- 8.1 Care shall be taken to minimise disturbance and where practicable, trenchless techniques employed; only as a last resort shall open excavations be considered. Where existing services within RPAs are deemed not satisfactory for any further use they should be left in situ rather than being excavated/removed.
- 8.2 In the unlikely event that incursions into RPAs are unavoidable, any new installation will comply with the methods and guidelines detailed in the National Joint Utilities Group (NJUG), Volume 4, *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*, Issue 2, 2007, and in accordance with the specification below.

9. Landscaping

- 9.1 On completion of construction works, but prior to the commencement of any landscaping works within the protected area behind the protective fencing the developer shall arrange a meeting with the site manager, the supervising arboriculturist and the landscape contractor. The details of this part of the method statement shall be discussed in relation to the proposed landscape operations and a clear sequence of operations established.
- 9.2 Within the RPAs the following principles will be maintained:
- Existing ground levels shall not be substantially altered.
 - No plant or vehicles shall enter the RPA.
 - No fuels or chemicals shall be stored within any of these areas.
 - Any excavation required for fence posts, log retaining walls or any other landscape structures shall be undertaken by hand, under direct arboricultural supervision. If roots are encountered then the position of the excavation shall be moved to a new location. If this is not possible then any roots with a diameter less than 25mm may be cut cleanly by hand. Any exposed roots shall be re-covered within 24hrs of excavation.
 - No structure shall be fastened in any way to the trunks of the retained trees.
 - No drainage or irrigation pipes shall be installed within the RPAs of the retained trees.
 - Any unwanted vegetation shall be removed by hand.

10. Supervision & monitoring

- 10.1 At the start of the construction process the supervising arboriculturist shall visit the site on the occasions specified to inspect the tree protection measures (fencing and ground protection) as installed. If these measures comply with the specifications detailed in this

method statement, statements of compliance shall be sent to the developer and copied to the LPA.

- 10.2 The supervising arboriculturist shall then visit the site on a regular basis, as agreed at the pre-start meeting, or when specifically required as set out in *Table 2* below, to ensure that the tree protection measures are kept in place and functioning as designed. Regular contact will be maintained with the site manager to determine any forthcoming operations that may make an impact on these tree protection measures and if arboricultural supervision is required. A record of all monitoring visits will be kept, and copies sent to the developer and the LPA upon request.
- 10.3 The site manager shall give at least 48 hours' notice to the supervising arboriculturist of any operations, e.g. construction of hard surfacing., which may make an impact on the RPAs of the retained trees.
- 10.4 Any alterations or variations in drawings for the site that are in, or within, the RPAs of the retained trees shall be referred in the first instance to the supervising arboriculturist for advice. If these changes make any kind of impact on the retained trees the supervising arboriculturist shall suggest changes that will either avoid damage to the retained trees or offer solutions to minimize the impact. Following these consultations, the supervising arboriculturist shall issue revisions to the TPP and/or this AMS that reflect the changes.
- 10.5 Where any operations carried out by the developer deviate substantially from this AMS, work must cease immediately. A meeting will be convened between the developer, the supervising arboriculturist, the LPA tree officer and the site manager to determine the best method to mitigate any damage that may have occurred. Work shall not be recommenced until appropriate action has been agreed to the LPA's satisfaction.

Visit no.	Trees affected/ relevant	Timing of visit	Function carried out
1	All	Following tree felling, erection of protective fencing and installation of ground protection.	To check protective fencing and ground protection have been installed in the correct locations and to the correct standard.
2	Tree 9	During the excavation of the section of the proposed driveway within the RPA of tree 10.	To supervise the manual excavation of proposed driveway to connect to the existing driveway.
3	All	Every six weeks during the construction phase.	To check the protective fencing & ground protection remain in place and that activities which would be harmful to trees are not being carried out.
4	All	At any other time which is sensitive in arboricultural terms.	To ensure retained trees are protected from development activities.

Table 2 - Timings of supervision and monitoring visits

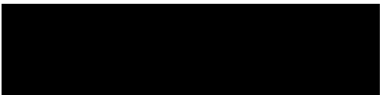
David Archer | Practice Principal

M.Arbor.A.

April 2021



APPENDIX 1 – Tree Schedule



Notes for the Tree Schedule

This schedule is based on an inspection carried out by David Archer on Tuesday the 6th April 2021. Weather conditions at the time were dry and bright. Deciduous trees were not in leaf. The information contained in this schedule reflects the conditions of those specimens at the time of inspection. They were inspected from the ground only; they were not climbed and no internal investigations were undertaken, thus no guarantee may be given as to their structural integrity.

As trees are dynamic organisms and subject to continual change no dimensions expressed in this schedule may be relied upon for development purposes for more than 24 months from the date of survey. Estimated dimensions are marked 'est'.

1. **No:** Expressed in sequential order starting from number 1 – woodlands, groups & hedges are prefixed as W, G, & H respectively.
2. **Species:** The common name as given in "Collins Tree Guide", Johnson & More (2004).
3. **Height:** Estimated with the aid of a 'Disto' laser range finder and expressed in metres.
4. **Trunk Diameter:** Measured at 1.5m above ground level and expressed in millimetres to the nearest 10mm; where multiple stems are present they are measured individually and a cumulative total calculated in accordance with BS5837 (2012).
5. **Radial Crown Spread:** Distance in metres from the centre of the trunk to each cardinal point of the compass and rounded up to the nearest half metre.
6. **Crown Clearance:** Mean height from adjacent ground level to the lowest point of the crown.
7. **Height to First Branch:** Height, in metres, of the first significant branch (100mm) or to crown break from ground level.
8. **Life Stage:** Young, Semi mature, Mature, Veteran/Ancient.
9. **Physiology:** Health and condition of the tree in comparison to a typical specimen of species and age: Good, Average, Below Average, Poor, Dead.
10. **Structure:** The structural condition of the tree based on an assessment of any visible roots, trunk and crown, noting the presence of any defects or decay: Good, Moderate, Indifferent, Poor, Hazardous.
11. **Landscape Value:** Reflecting the importance of the tree in the local landscape. High, Moderate, Low, Nil.
12. **Estimated Years:** Estimate of remaining contribution expressed in years <10, 10-20, 20-40, 40+.
13. **Comments:** Notes relating to health and condition, structure and form, estimated life expectancy and importance within the local landscape.
14. **Category:** - A rating given to individual trees based on Table 1 in the British Standard, BS 5837 (2012) "*Trees in relation to design, demolition and construction - Recommendations*".

Category 'U' - Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboriculture management.

Category 'A' - Trees of high quality and value; in such a condition as to be able to make a substantial contribution (Normally a minimum of 40 years).

Category 'B' - Trees of moderate quality and value; those in such a condition as to make a significant contribution (Normally a minimum of 20 years).

Category 'C' - Trees of low quality and value; currently in adequate condition to remain until new planting could be established (Normally a minimum of 10 years), or young trees with a stem diameter below 150mm.

Sub-categories (where appropriate); 1 – Mainly arboricultural qualities: 2 – Mainly landscape qualities: 3 – Mainly cultural values, including conservation.

No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category
1	Indian Bean Tree	4m	370mm @1m	2.5m	2m	1.5m	Mature	Good	Good	Low	40+	Regularly heavily pruned to maintain present canopy size; of moderate quality but low value.	C
2	Maritime Pine	11m	610mm	N4m E3.5m S4.5m W3m	4m	2m	Mature	Good	Average	Moderate	40+	Low crown break giving rise to typical domed crown with ascendant branch structure; of moderate quality but low value.	C
3	Willow-leaved Podocarp	4m	80mm	1.5m	0m	0m	Semi-mature	Good	Good	Low	40+	Of high quality but low value.	C
4	Sweet Gum	6m	300mm	2.5m	2m	1m	Mature	Good	Average	Low	40+	Regularly pruned to maintain present crown dimensions; of moderate quality but low value.	C
5	Strawberry Tree	4m	210mm	2.5m	3m	2m	Dead	Dead	Below average	Nil	Dead		U
6	Monterey Cypress	7m	240mm	2m	1m	1m	Semi-mature	Average	Average	Low	40+	Located in rockery; twin stemmed from base; of moderate quality but low value.	C
7	Pittosporum	5m	190mm @750mm	2.5m	3m	1m	Semi-mature	Good	Average	Low	40+	Poor crown conformation; of low quality and value.	C
8	Flowering Cherry	2m	85mm @1m	N3m E0.5m S0.5m W0.5m	1m	1m	Mature	Average	Average	Nil	20-40	Ornamental specimen with strongly asymmetrical crown; of low quality and value.	C
9	Cherry Laurel	4m	210mm	3m	1m	1m	Semi-mature	Good	Average	Low	40+	Provides some boundary screening; of moderate quality and value.	C
10	Pittosporum	6m	120mm 120mm 150mm 180mm	2.5m	2m	1m	Mature	Average	Average	Low	20-40	Multi-stemmed from base; provides some boundary screening; of low quality and value.	C



APPENDIX 2 – Tree Protection Plan

