



ARBORICULTURAL METHOD STATEMENT

162 Stakes Hill Road, Waterloooville

- prepared on behalf of M.A. Wright Ltd. -

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1.0 INTRODUCTION & CLIENTS BRIEF

- 1.1 I am instructed on this project by **M.A. Wright Ltd.** who own the property at **162 Stakes Hill Road, Waterloooville.**
- 1.2 They seek to obtain planning approval to redevelop the site for the purposes of residential development demolishing the current dwelling and constructing a bespoke development of Apartments with associated parking and upgraded access arrangement.
- 1.3 There are on and off-site trees of various species which will need to be catered for in this process.
- 1.4 I have been commissioned to prepare a report to satisfy the arboricultural aspects of this project to meet planning requirements.
- 1.5 My work is to be compiled in accordance with the recommendations contained within BS5837:2012.

2.0 DOCUMENT DISCLOSURE STATEMENT

I have been provided with a copy of the Planning Layout drawing as prepared by the project Architects – **BBF Fielding Architecture :-**

- **Proposed Residential Development – 16 014 – Sk 201 rev. F2 – Option 3.2 - 1:200 @ A3 – February 2019**
- this has been provided to me for the purposes of my work and I rely totally on the accuracy of this drawing in terms of tree location; applying crown spreads and setting out protective fencing.

3.0 TREE SURVEY & ROOT PROTECTION SCHEDULES & IMPACT ASSESSMENT

3.1 I visited the site on **15th October 2018** and carried out a tree survey exercise in accordance with BS5837:2012 recommendations.

(see also the explanatory tree survey notes [at appendix BH1](#)).

Tree No.	Species	Ht m	Diam mm	Brch Sprd m	GC m	LS	Comments	Preliminary Management Recommendations	Rem Con yrs	Cat
1	Purple Beech <i>Fagus sylvatica</i> ' <i>Purpurea</i> '	24	1250	N 9 E 7 S 7 W8	2	M	Situated on raised ground 400mm above the main drive-old fungal bracket of <i>Ganoderma</i> spp. attached to southeast side of trunk at ground level-a grafted tree with the graft union visible close to ground level-ivy smothering base, trunk and through crown of tree-multi stemmed at 2m above ground-tight forks with included bark-small diameter deadwood throughout and some pieces of larger diameter deadwood-low branching habit-dieback of main leaders in upper reaches of crown probably due to the fungal attack on the root system – this tree has been thinned out in the past and old wounds testify to this fact.	Sever the ivy at ground level. Remove the major dead limbs. In view of the location and nearby targets and the presence of an old heart rot fungal bracket I would recommend that a Decay Detection Exercise is undertaken (PICUS Tomograph) to better understand what is going on inside the tree. IF the result of this exercise concludes that the tree can be retained then I advise a 30% crown reduction and reshaping exercise to reduce the canopy area that the root system has to sustain.	>40	B1
2	Maidenhair Tree <i>Ginkgo biloba</i>	24	770	N 5 E 10 S 7 W2	2	M	Ivy smothering the base and up the trunk-bifurcated at 2m above ground with a tight fork and included bark-suppressed to the west side due to the dominance of T1-crown shape dictated by T1-low branching habit-one long low heavily laden limb to the east side.	Consider inserting a cable brace between the main stems. Shorten back the long low limb to the east side to rebalance the crown.	>40	B1
3	Fastigate Hornbeam <i>Carpinus betulus</i> ' <i>Fastigiata</i> '	15	480	N 7 E 7 S 5 W5	3	EM	Off site tree-roots exposed and mower damaged-epicormics on trunk-multi stemmed at 2m above ground-tight forks with included bark-high crownlifted to 4m above ground-good shape and form overall.	No work required at this time	>40	A1
4	Fastigate Hornbeam <i>Carpinus betulus</i> ' <i>Fastigiata</i> '	15	530	N 7 E 5 S 5 W5	3	EM	Off site tree-roots exposed and mower damaged-epicormics on trunk-multi stemmed at 2m above ground-tight forks with included bark-high crownlifted to 4m above ground-good shape and form overall.	No work required at this time	>40	A1
Group 1	Fastigate Cherry <i>Prunus avium</i> ' <i>Fastigiata</i> ' x 16 of	5 to 6	Av. 90 60 60	N 0.5 E 1 S 2 W1	0.5	SM	Multi stemmed at 0.5m-tight forks with included bark-fair shape and form.	No work required at this time	>40	A2
Group 2	Lawson Cypress (Var.) <i>Chamaecyparis lawsoniana</i> x 3 of	2.5 to 4	Av 100	N 1.5 E 1.5 S 0.5 W1.5	0	SM	Low branching habit-poor quality trees.	No work required at this time	10-20	C2

Hedge 1	Common Beech <i>Fagus sylvatica</i>	2.5	Av. 70	N – E 0.5 S – W2	0	SM	Formal clipped hedge of good shape and from overall.	No work required at this time	>40	B2
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3.2 A Tree Root Protection Schedule has been prepared in accordance with BS5837:2012 recommendations (see Plans BJH 01 & 02 at [appendix BH2](#))

Tree No.	Tree Species	Cat	Diam mm	BS5837:2012 Table D1 Radial Protect. Zone m	BS5837:2012 Table D1 Root Protect. Area m ²	Is An Offset Required To Cater For Existing Rooting Pattern Restrictions
1	Purple Beech <i>Fagus sylvatica</i> 'Purpurea'	B1	1250	15.0	707	NO-fairly free rooting to all directions
2	Maidenhair Tree <i>Ginkgo biloba</i>	B1	770	9.2	268	NO-fairly free rooting to all directions
3	Fastigate Hornbeam <i>Carpinus betulus</i> 'Fastigiata'	A1	480	5.8	104	NO – there are constraints all around this tree which cancel each other out
4	Fastigate Hornbeam <i>Carpinus betulus</i> 'Fastigiata'	A1	530	6.4	127	NO – there are constraints all around this tree which cancel each other out
Group 1	Fastigate Cherry <i>Prunus avium</i> 'Fastigiata' x 16 of	A2	Av. 90 60 60	1.5	7	NO-fairly free rooting to all directions
Group 2	Lawson Cypress (Var.) <i>Chamaecyparis lawsoniana</i> x 3 of	C2	Av 100	1.2	5	NO-fairly free rooting to all directions
Hedge 1	Common Beech <i>Fagus sylvatica</i>	B2	Av. 70	0.9	3	NO-fairly free rooting to all directions

4.0 IMPACT ASSESSMENT & TREE PROTECTION MEASURES RECOMMENDED

4.1 The finalised planning layout drawing has been provided to me and an assessment made as to the viability of retaining trees as part of this layout in order that they meet the RPA requirements of BS5837 - the data is presented here in tabular format:-

Key: **NO-RSAM** = Remove for sound arboricultural management reasons **NO-RTFD** = Remove to facilitate development **UF** = under footprint of proposed development

YES = Yes can be retained and fully protected

YES (1) = Yes can be retained subject to mitigation measures being applied

Tree No	Species	Cat	Stem Diam mm	BS5837:2012 Radial Protection Area m	BS5837:2012 Table D1 Root Protect. Area m ²	Distance from Site Features (see key above)	Can Tree Be Retained
1	Purple Beech <i>Fagus sylvatica</i> 'Purpurea'	B1	1250	15.0	707	1m to existing consolidated gravel driveway 7.5m to existing building 7.5m to proposed building 2.5m to proposed concrete base for Cycle Store 6m to proposed parking bays	YES (1)
2	Maidenhair Tree <i>Ginkgo biloba</i>	B1	770	9.2	268	1m to consolidated gravel driveway 13.5m to existing building 5.3m to proposed building 8.4m to proposed concrete base for Cycle Store 11.7m to proposed parking bays	YES (1)
3	Fastigate Hornbeam <i>Carpinus betulus</i> 'Fastigiata'	A1	480	5.8	104	4m to existing paved courtyard 6m to existing building 18m to proposed building 3.3m to proposed concrete base for Cycle Store 5m to proposed parking bays	YES (1)
4	Fastigate Hornbeam <i>Carpinus betulus</i> 'Fastigiata'	A1	530	6.4	127	3.5m to existing paved courtyard 4.5m to existing building 25.5m to proposed building 7.5m to proposed concrete base for Cycle Store 3m to proposed parking bays	YES (1)
Group 1	Fastigate Cherry <i>Prunus avium</i> 'Fastigiata' x 16 of	A2	Av. 90 60 / 60	1.5	7	2m + to proposed building for 5 trees Travelling from West to East 11 trees are UF of proposed building	YES (1) NO-RTFD
Group 2	Lawson Cypress (Var.) <i>Chamaecyparis lawsoniana</i> x 3 of	C2	Av 100	1.2	5	UF of new proposals	NO-RTFD

Tree No	Species	Cat	Stem Diam mm	BS5837:2012 Radial Protection Area m	BS5837:2012 Table D1 Root Protect. Area m ²	Distance from Site Features (see key above)	Can Tree Be Retained
Hedge 1	Common Beech <i>Fagus sylvatica</i>	B2	Av. 70	0.9	3	15m stretch from South to North along Eastern property boundary line would be UF of proposed building Remaining 11m of Hedge along Eastern property boundary is 1.5m + from new building and Southern boundary hedge can all be retained in situ	NO-RTFD YES (1)

4.2 SUMMARY

	YES Can be retained and fully protected in accordance with BS5837 recommendations - see Tree Protection Plan BJH.03/04 at appendix BH3	YES (1) Can be retained and protected in accordance with BS5837 recommendations (see Tree Protection Plan BJH.03/04 at appendix BH3) - subject to adherence to the methodology prescribed in this report – see Section 6 for full details.	NO-RTFD Recommended for removal in order to facilitate development proposals	NO-RSAM Recommended for removal on sound arboricultural management grounds [health and safety grounds] regardless of any redevelopment proposals
A	-	Trees 3 & 4 x 5 of Group 1	x 11 of Group 1	-
B	-	Trees 1 & 2 Hedge 1 (Southern section + 11m of Eastern section)	Hedge 1 (15m of Eastern section)	-
C	-	-	Group 2	-
U	-	-	-	-

4.3 Most trees & groups will have works taking place within their RPA's so a series of mitigation measures and special foundation treatments will be required on this project. Please see Section 6 of this report for specific details of each situation.

4.4 There will be direct losses in the form of - 11 of the Group 1 trees and also all of the Group 2 conifers + a 15m section of Hedge 1 cannot be retained with this layout.

5.0 RECOMMENDED TREE WORKS

N.B. Trees T1 & T2 are TPO'd so it will be necessary before removing any live material to first obtain the written approval of the local authority – removal of deadwood is exempt from this requirement.

No	Species	Tree Works Recommended
1	Purple Beech <i>Fagus sylvatica 'Purpurea'</i>	- Sever the ivy at ground level. - Remove the major dead limbs. In view of the location and nearby targets and the presence of an old heart rot fungal bracket I would recommend that a Decay Detection Exercise is undertaken (PICUS Tomograph) to better understand what is going on inside the tree. IF the result of this exercise concludes that the tree can be retained then I advise a 30% crown reduction and reshaping exercise [4m off the top and 2.5m to 3m off the laterals] to reduce the canopy area that the root system has to sustain and also significantly reduce the risk of crown collapse. <i>ALL of the above work will require the Councils written approval as these is a TPO'd protected tree.</i>
2	Maidenhair Tree <i>Ginkgo biloba</i>	- Consider inserting a cable brace between the main stems. - Shorten back the long low limb to the east side to rebalance the crown. <i>ALL of the above work will require the Councils written approval as these is a TPO'd protected tree.</i>
3	Fastigate Hornbeam <i>Carpinus betulus 'Fastigiata'</i>	<i>Off-site Street Tree</i> <i>No works required at this time</i>
4	Fastigate Hornbeam <i>Carpinus betulus 'Fastigiata'</i>	<i>Off-site Street Tree</i> <i>No works required at this time</i>
Group 1	Fastigate Cherry <i>Prunus avium 'Fastigiata'</i> x 16 of	- Carefully fell the 11 trees in the western sector of the linear belt - avoiding damage to the remainder. - Grind out the stumps. - The remaining 5 trees require no works at this time.
Group 2	Lawson Cypress (Var.) <i>Chamaecyparis lawsoniana</i> x 3 of	- Fell to ground level. - Grind out the stumps to minimise the impact on Trees 1 & 2.
Hedge 1	Common Beech <i>Fagus sylvatica</i>	- Fell and grub out 15m of the southern section of the Eastern boundary hedge line. - Trim back the inner face of the retained trees to allow for construction to take place.

6.0 METHOD STATEMENT

Generic

- 6.1 All of the recommended tree works should be undertaken by an approved and experienced tree contractor prior to any construction contractors commencing works on site.
- 6.2 Erect the protective fencing as specified and shown on the **Tree Protection Plan BJH03/04** at [appendix BH3](#). Barriers are to be 'Fit For Purpose' to exclude construction activity and must be maintained to ensure that they remain rigid and complete and in the original setting out positions. These checks will need to be incorporated into a schedule of site monitoring visits to be agreed with the clients subject to phased development operations and subsequently copies of these site visit reports will need to be copied in to the Council.
- 6.3 A copy of the Tree Protection Plan is to be pinned up in the offices/mess hut on site for all site staff to see. The area within the fenced off exclusion zone is to be regarded as **sacrosanct** and the fencing shall not be taken down or relocated at any time without the prior written approval of the monitoring arboriculturist or local authority tree officer, unless this has already been agreed as part of the planning application consent process and is detailed in writing and shown on a plan.

The following prohibitions shall apply within the area enclosed by the Tree Protection Fencing [**Construction Exclusion Zone**]:-

- **No** mechanical digging or scraping once the initial ground cover vegetation has been cleared and the site fenced off.
- **No** storage of plant, equipment or materials
- **No** vehicular or plant access
- **No** fire lighting
- **No** handling, discharge or spillage of any chemical substance, including cement washings
- **No** action likely to cause localised water-logging
- **No** change in ground levels

- 6.4 All site works storage areas and compounds/welfare units/toilet blocks and any mixing areas are to be located outside of and well clear of retained trees and positioned over impervious surfaces or over special catchment areas such that any leakage will be captured and cannot leak into the soil causing contamination.
- 6.5 The full details of the proposed utility service links are not available to me at this time so will it is suggested need to form part of a separate Method Statement to satisfy a Planning Condition. All Utility Service connections are ideally to link into existing service runs or be brought in over ground. Where this is not possible then the principles of Hand Digging of trenches and strict observance of the recommendations in NJUG 10 are to be followed.

Site Specific

6.6 Demolition Phase

- The existing building will need to be demolished and for this phase all surrounding hard surfaces will be retained in situ to protect the ground from compaction/contamination damage and any exposed open ground within tree RPA's will require Ground Protection measures (e.g. Ground Guard – metal sheeting panels) to be applied [see Plan 03/04 Demolition Phase at appendix BH3].
- *The building will need to be pulled in on its own footprint and particular care taken to avoid damaging the low branches of surrounding trees – this will need to be the Site Managers responsibility to ensure that all visiting lorry drivers and people operating machinery on site are given an induction session prior to entering the site where the requirement to protect surrounding trees is clearly spelt out to them.*
- *Once bare earth is exposed all machinery work must cease and a ground protection laid in accordance with BS5837:2012 Section 6.2.3.3 appropriate to the proposed use of machinery over this zone :-*

BS5837:2012 – Section 6.2.3.3 - New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

Note The ground protection might comprise one of the following:

- a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold 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;*
- b) for pedestrian –operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;*
- c) for wheeled or tracked construction traffic exceeding 2t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.*

6.7 Construction Phase – New Foundations

The new building footprint significantly overlaps the RPA's of Tree 1 & 2 so standard trench footings are out of the question as they would damage tree roots, therefore it will be necessary to apply an Engineer Designed Piled Foundation which would need to follow this construction methodology :-

- *Retain the existing driveway and access point and add further ground protection (e.g. Ground Guard – metal sheeting panels) as necessary to cater for the size and weight of the Construction vehicles which will be utilised on this project. On completion of Construction works top dress with additional washed small diameter aggregate as necessary.*
- *Mark out on the ground the locations for the piles.*
- *Introduce a mini piling rig to the site - taking due care not to damage the low branches or roots of any on or off site trees.*
- *Operate the Piling Rig over adequate ground protection (e.g. Ground Guards or similar).*
- *Auger the holes and line them as appropriate and infill with reinforcing rods and concrete as per the Engineers instructions.*
- *Form the pile caps sinking them in no more than 100mm into the ground.*
- *Lay reinforced lintels to span the pile caps and then construct a suspended floor above this as per the Engineers instructions.*
- *The buildings can now be constructed in the standard way safe in the knowledge that tree roots will not suffer from compaction damage or soil contamination.*

ALTERNATIVELY – follow the Abbey Pynford system of construction – see details at Appendix BH3.

Whichever system is followed there will be a need to agree this in writing with the Planners prior to undertaking any works.

6.8 Car Parking Area/Recycling & Refuse Bin Location

- This is all currently under the footprint of the existing building or consolidated driveway/paved courtyard area - so in principle this would mean that the shallow depth required for the sub-base and wearing course of the new Car Parking Bays should result in no requirement for excavation and thus no damage would occur to the root systems of Trees 1 to 4.
- However, there will be a need to carefully remove the existing building and footings (as described above at 6.6) and as soon as bare earth is revealed all machine work must cease and Ground Protection laid across this zone – this is to remain in situ for the duration of the main construction of the Building after which it can be removed to allow the Car Parking area to be laid out with 'No Dig' Porous materials.

- The final wearing course is to be of a proprietary material that is both porous and load bearing such as CellWeb or GeoCell polymer cellular grid systems – these would be laid onto a porous geotextile membrane and infilled with washed aggregate.
- This will achieve a net benefit for Trees 1 to 4 in terms of water percolation and gaseous exchange as this zone was previously covered over by the building or impervious paved courtyard.

6.9 Boundary Fencing Treatments

The retained trees on this site could be affected by this work therefore the following methodology is to be adhered to :-

- *Where fencing is to be positioned adjacent to existing hedge screening this will first need to be carefully faced back to allow working room for the works to take place.*
- *The close boarded fencing support posts [be they wooden or concrete] will need to be set out on the ground where they are to be positioned.*
- *Then probe the locations to receive these support posts with a metal ground auger to ensure that there are no major roots at these locations – in the event that one is encountered then the post hole must be moved to one side to avoid them.*
- *IF the posts are to be driven in by machine then proceed to do so once the location has been proved to be clear of major roots.*
- *IF the post holes are to be hand dug - any roots of 25mm diameter or less that are encountered in the dig may be cleanly severed with secateurs [if roots larger than this are encountered then an Arboricultural expert must be called in to advise, or the holes must be abandoned and new ones excavated to one side to avoid the roots.]*
- *If the holes are to be filled with concrete then they must first be lined with a thick polythene bag before the posts are centrally positioned in the hole and then concrete inserted around them– this is to avoid soil contamination.*
- *Alternatively pack the area around the posts with washed aggregate.*

7.0 SITE MONITORING & SUPERVISION

BS5837 recommends that wherever trees on or adjacent to a site have been identified on the Tree Protection Plan as requiring special protection measures, there should be an auditable system of arboricultural site monitoring. This should extend to direct arboricultural monitoring whenever demolition/construction and development activity is to take place within or adjacent to any RPA.

- 7.1 A Pre-commencement site meeting is to take place between the development teams arboricultural consultant and the site manager and client representative where the protective fencing will be inspected to verify that it is 'Fit For Purpose' and has been erected as shown on the **Tree Protection Plan**.
- 7.2 Given the intensity of work within RPA's and in close proximity to protected trees there will be a requirement for regular and scheduled site visits by the Arboricultural Expert.
- 7.3 Lines of communication will be established with the Site Manager and a contact sheet prepared so that in the event that an incident occurs involving the retained trees that requires urgent advice and guidance from the project Arboricultural Expert this can be easily organised.
- 7.4 The details of the PCSM works will be photographed by the Arboricultural Expert and the following reporting procedure will be adopted. This is an example of the format for the **Site Monitoring Schedule** that would be prepared. :-

Schedule Of Site Monitoring & Supervision for – 162 Stakes Hill Rd, Waterloooville

- In accordance with the Arboricultural Method Statement Report - 1039.bjh.Apr19 & Tree Protection Plan - BJH 03/04

Date of Inspection	Item	In Attendance	Notes/Observations From Inspection	Details Of Any Follow Up Action Required
tba	Pre-Commencement Meeting	Project Arb Consultant & Site Construction Manager [Council Tree Officer will also be invited to attend]	A joint site inspection was conducted and agreement reached that the protection measures are in place and that everyone understands their responsibilities in respect of protecting the trees.	
tba	Regular Scheduled Site Visits throughout demolition/construction works phases (timings to be agreed)	Project Arb Consultant & Site Construction Manager [Council Tree Officer will also be invited to attend]	A joint site inspection was conducted	

8.0 CONCLUSIONS

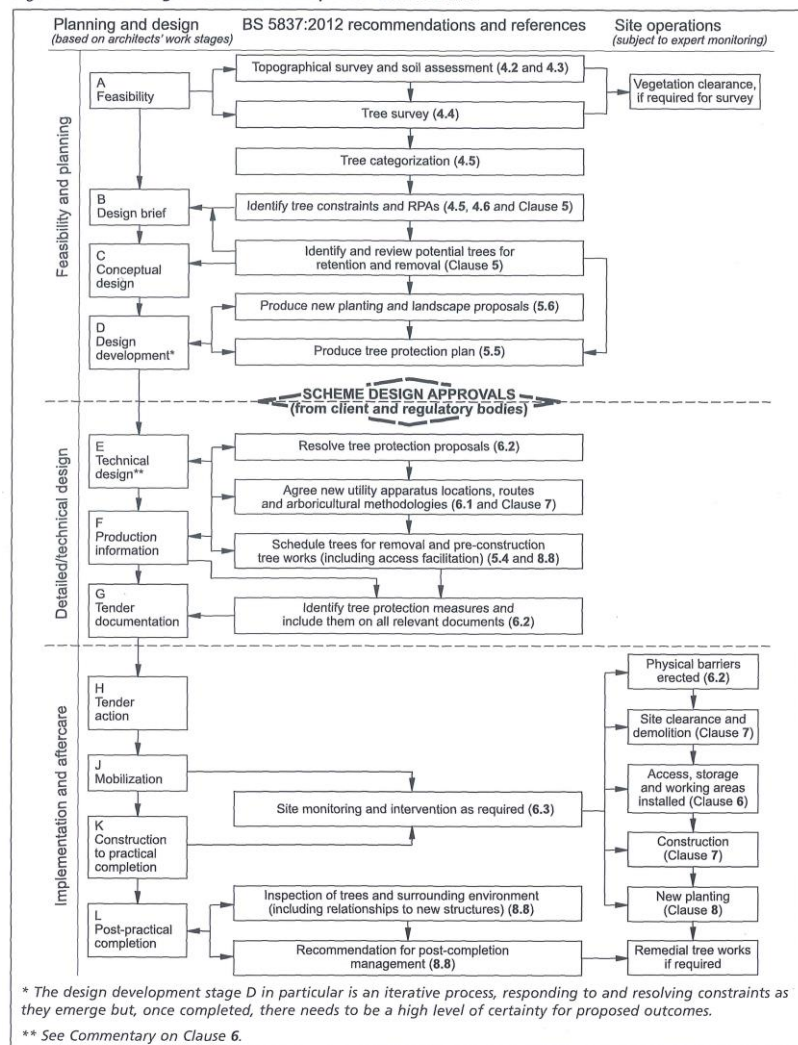
- With this proposed layout a number of small trees of limited value and low landscape significance (all of **Grp2** and most of **Grp 1**) will need to be removed to facilitate the build – along with a 15m long section of **Hedge 1**.
- There will ultimately be a benefit to all nearby retained mature trees from the conversion of the area previously covered by the house and adjacent impervious paving to porous surfaced car parking.
- The intensity of works within the RPA of the two TPO'd trees and two Street Trees necessitates that a high level of ongoing arboricultural expert monitoring and supervision will be required to minimise the impact on tree roots and ensure that these trees survive the works in good order and an Engineer designed piled solution will need to be applied to form the foundations of the new building and also a 'No Dig' porous cellular confinement system to form the base for the new Car Parking Bays.
- Provided that the above methodology is strictly adhered to in a carefully considered and phased and supervised manner then I would not foresee any detrimental impact taking place that might undermine the ongoing health and stability or visual amenity value of those trees shown for retention both on and off this site.



BH 1

Figure 1 - Flow Diagram
& Tree Survey Notes

Figure 1 The design and construction process and tree care



TREE SURVEY NOTES

These Tree Survey Notes have been prepared in accordance with the recommendations of **British Standard 5837:2012** and they define the criteria for pre –development tree surveys.

- Each tree/group/hedge/shelterbelt/woodland has been allocated a unique number (**No.**), where specifically requested and appropriate fees are agreed small durable numbered metal tags can be applied to each tree/group surveyed.
- The tree species (**Species**) is provided in both English and Latin name formats.
- Height assessments (**Ht**) are estimated in metres. This will be adequate for the majority of cases, but where accurate heights become a critical issue it may be necessary to return to site, as a separately commissioned exercise, to collect accurate measurements with the aid of optical instruments.
- Trunk/stem diameters (**Diam**) are measured in millimetres at 1.5m above ground level – where the tree is inaccessible the diameter is estimated as indicated by suffix #
- Radial crown spread assessments (**Brch Sprd**) are estimated in metres from the centre of the trunk/group to each of the four primary points of the compass (**N**-north; **E**-east; **S**-south and **W**-west) in order to achieve a representation of the crown shape which will be shown on the accompanying tree survey plan. These provide a general guide as to the main bulk outline of a tree/groups crown but are not tape measured dimensions. These would only be undertaken as part of a separately commissioned exercise, where precise dimensions are critical to the project at hand.
- Both the canopy ground clearance (**GC**) and the height & compass direction of the lowest major branch (**LMB**) are estimated and shown in metres
- An assessment of a tree/groups 'life stage' (**LS**) is made in terms of its site specific maturity as part of the surrounding landscape, taking into account its overall shape and form in that setting, and is recorded thus :-
Y - Young tree/group; **SM** - Semi-Mature tree/group; **EM** - Early-Mature tree/group;
M – Mature tree/group; **OM** - Over – mature tree/group
- Data on the structural condition (**Condition Comments**) of the tree/group is provided to give its visual appearance and any significant health and safety issues.
- Details of any recommended tree works required at the time of survey is given under the heading – **Preliminary Management Recommendations**.
- An estimate of a tree/groups remaining contribution in years (**RC**) is made and is recorded thus :-
0-5; 5-10; 10-20; 20-30; 30-40 or **>40** years.
- The category grading (**Cat**) for each tree/group is assessed according to the criteria provided within **BS5837:2012**. The assessment is made of the tree/group in its current condition and within the environment encountered bearing in mind its suitability for retention as part of any future proposed

development; although the exact layout detail of any specific scheme will not be known at the time of surveying. The trees have been classified into one of four categories and colour coded as BS5837 recommends :- **U** (dark red); **A** (light green); **B** (mid-blue) and **C** (grey). Please note that suffixed numerical sub-categories are also applied for guidance only and do not carry any cumulative or increased value for the tree/group. This colour coding scheme will be applied to all drawings provided.

Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria			Colour on plan
Trees unsuitable for retention				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (i.e. where, for whatever reason the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.			Dark Red
Trees to be considered for retention				
	Criteria – Subcategories			
	1	2	3	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and /or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light Green
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in the category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Mid Blue
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Grey



BH 2

Tree Survey & Root Protection Plans

BJH 01/02



BH 3

Tree Protection Plan BJH 03/04

- + BS5837:2012 – Figures 2 & 3
- + Example of the Abbey Pynford Piling System
- + Examples of Porous Car Park surfacing

Figure 2 Default specification for protective barrier

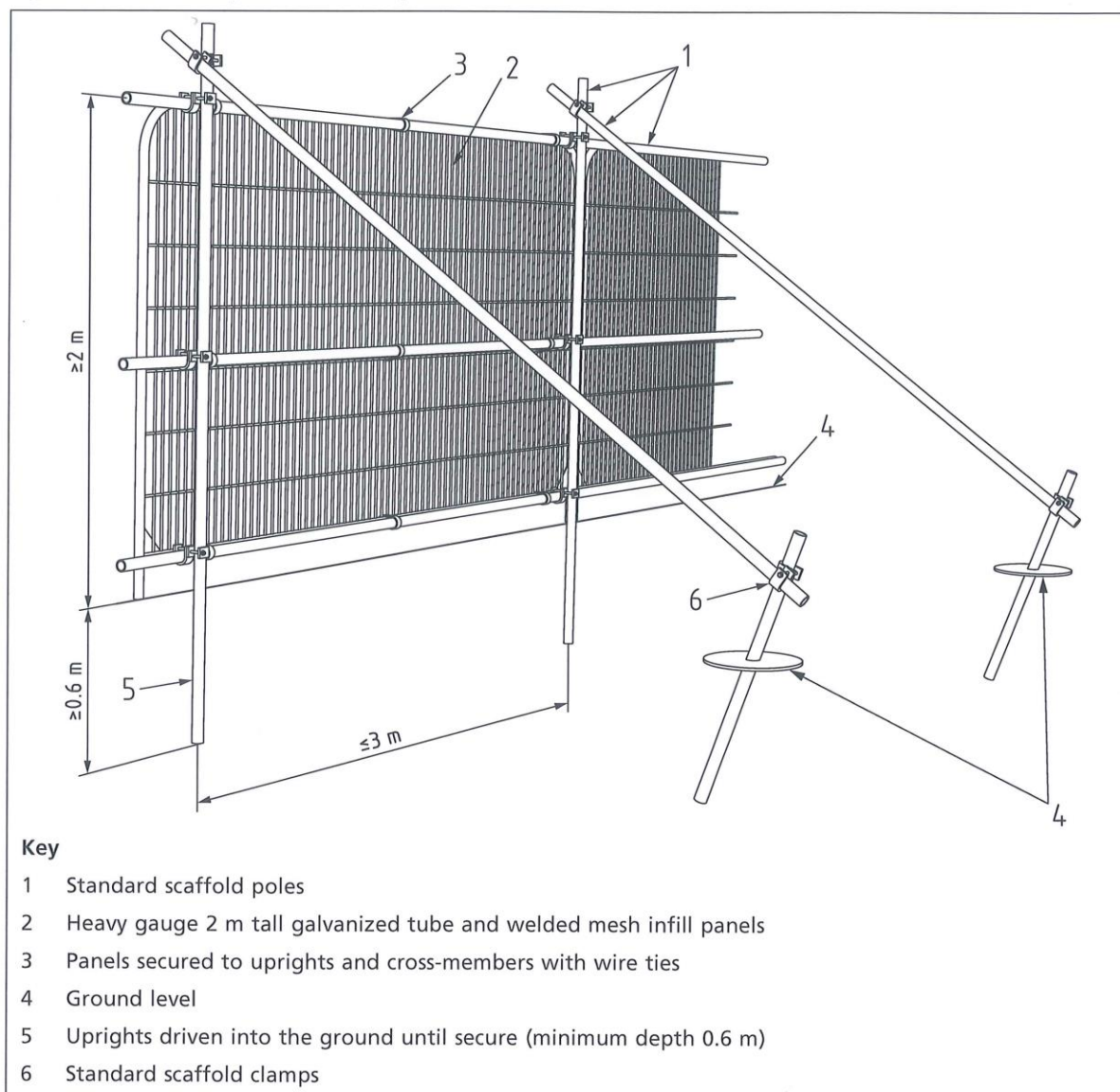
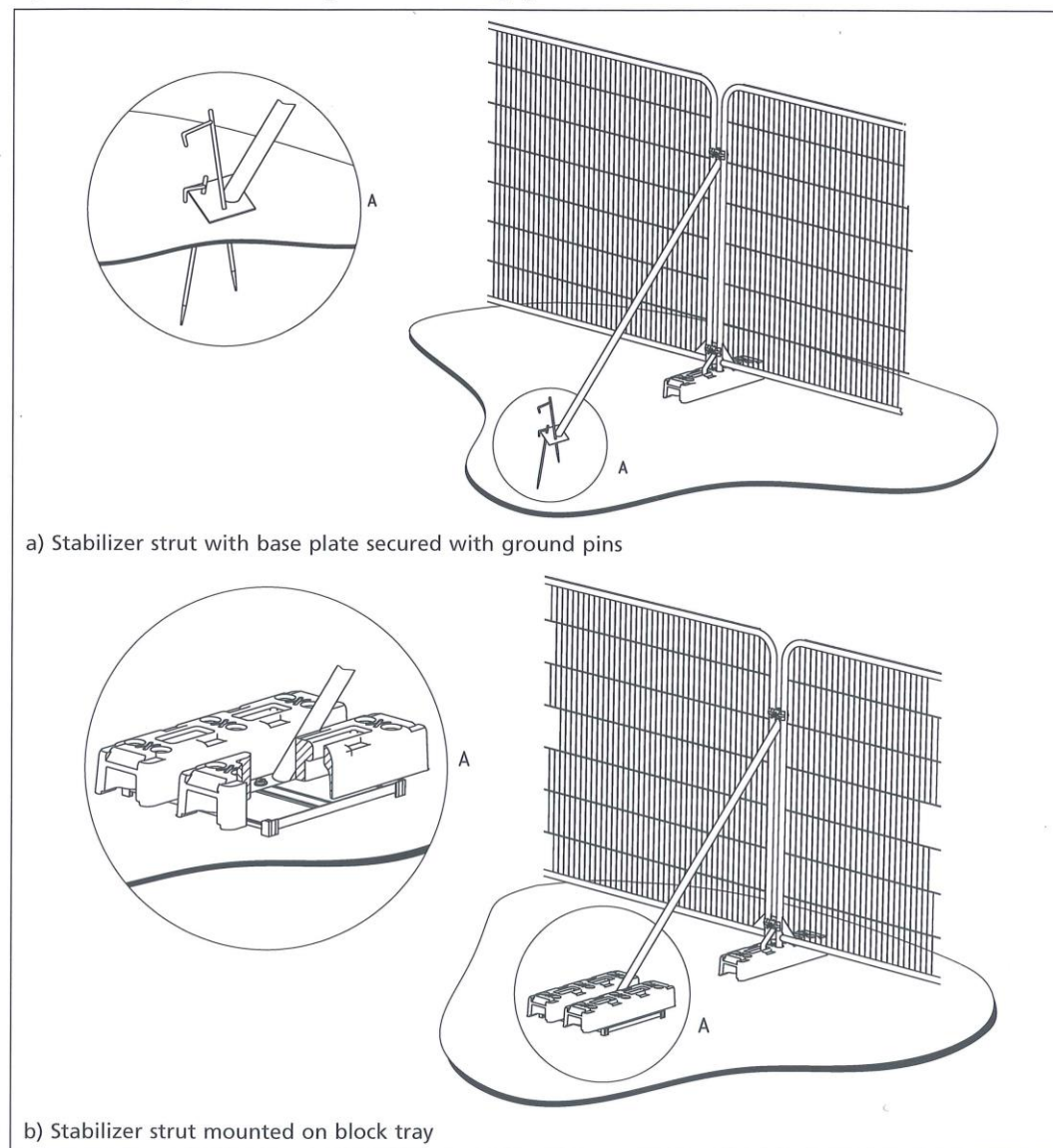


Figure 3 Examples of above-ground stabilizing systems





BH 4

Qualifications & Experience



QUALIFICATIONS AND EXPERIENCE

- My name is Bernie Harverson and I am a self employed independent arboricultural consultant in private practice. I take instructions primarily in the South of England but also on occasions work nationwide and abroad and have offices at : –

The Granary, White Chimney Row, Westbourne PO10 8RS

- I hold the following arboricultural qualification – **National Diploma in Arboriculture (Royal Forestry Society – 1976)**
- I have **forty eight** years of practical and managerial experience in the arboricultural industry including periods in both the public and private sectors.
- My Local Government sector experience comprises one year as a tree surgeon with Brighton Parks and nine years spent in Arboricultural Officer posts with both Westminster City Council and Portsmouth City Council.
- My past practical experience in the private sector includes two years at Tilhill Forest Nursery and over ten years for various companies as a Climbing Arborist/Tree Surgeon.
- Managerial work in the private sector includes two years as manager of Beechings Tree Surgeons and twelve years with CBA Trees as Managing Director & Senior Arboricultural Consultant.
- As an independent self employed Arboricultural Consultant I now provide a comprehensive range of services including :-
tree surveys, appraisals, assessments and inspections with particular reference to planning and development and tree safety audits with a service offered as a climber to undertake full climbing inspections to better understand the condition of a given tree before prescribing a management strategy.
- I also undertake litigation work appearing as an Expert Witness in Court Actions and at Planning Appeals, Hearings and Public Local Inquiries.

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