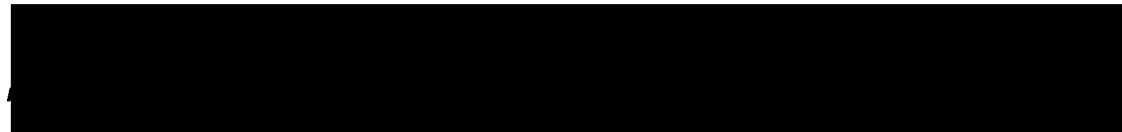




ARBORICULTURAL METHOD STATEMENT

Bognor Campus - Upper Bognor Road – Residential Development

- prepared on behalf of University of Chichester –



Section	Subject Heading
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2	DOCUMENT DISCLOSURE STATEMENT
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BH3	Tree Retention & Removals Plan BJH 03 & Tree Protection Plan – BJH 04 + BS5837 – Figure 2
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1.0 INTRODUCTION & CLIENTS BRIEF

- 1.1 My clients are the **University of Chichester** who own the land at **Bognor Campus**.
- 1.2 They seek to redevelop part of the existing site (**Charlotte House & 67 to 71a**) to provide residential accommodation by revamping the existing buildings as well as adding two Sitnew dwellings and providing landscaped gardens to all.
- 1.3 There are on site trees of various species which will need to be catered for in this process as they are within influencing distance of the project,
- 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 following Planning Layout drawings as prepared by **Saunders Architects** :-

- **Site Plan Proposed – 5542-100-D1 – 1:250 @ A3– 24.10.19**
- This plan 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 **6th November 2019** and carried out a tree survey exercise in accordance with BS5837:2012 recommendations on those trees which are closest to the areas of proposed redevelopment (see explanatory tree survey notes at appendix IIII).

Tree No.	Species	Ht m	Diam mm	Breh Sprd m	GC m	LS	Comments	Preliminary Management Recommendations	Rem Con yrs	Cat
1	Sweet Chestnut <i>Castanea sativa</i>	15	650	N 2 E 10 S 5 W 3	4	M	Unable to access-ivy smothering base, trunk and through crown and dominating-previously topped out-dead top-interfering with light throws from lighting column	Fell for safety reasons in view of close proximity to the road	<10	U
2	Sycamore <i>Acer pseudoplatanus</i>	20	650	N 6 E 11 S 4 W 4	4	M	Ivy smothering base-dead ivy on trunk-suppressed –major deadwood and stubs	No work required at time of survey	>40	B1
3	Holly <i>Ilex aquifolium</i>	10	400	N 5 E 7 S 4 W 0	1.5	M	Ivy smothering base and trunk-bifurcated at 2m above ground level-suckers –leans heavily east-suppressed	No work required at time of survey	30-40	C1
4	Grey Poplar <i>Populus cinerea</i>	20	670 500	N 8 E 10 S 8 W 8	2	M	Roots exposed and mower damaged-bifurcated 1m above ground level-strong open fork-major deadwood and stubs-significant cankering undermines the safety of the southern trunk that grows out towards the house	Consider adapting mowing practices and relay turf-remove southern trunk for safety reasons and make final cut 0.5 m above main fork at ground level-remove deadwood and stubs	20-30	C1
5	Grey Poplar <i>Populus cinerea</i>	20	580	N 5 E 7 S 3 W 3	3	EM	Hollow soundings obtained at ground level-contorted trunk-significant cavities in old pruning wounds-suppressed by Tree 4 -poor quality tree	Fell for safety reasons	<10	U
6	Common Beech <i>Fagus sylvatica</i>	12	480	N 3 E 6 S 6 W 4	1.5	EM	Canker on trunk-suppressed-low crown density-low vigour and vitality-dieback-major deadwood and stubs-significant cankering of branches-poor quality tree	Remove deadwood and stubs and monitor annually as it has a short safe life span	<10	U
7	Sweet Chestnut <i>Castanea sativa</i>	7	400 350 250 x2 100	N 6 E 7 S 7 W 6	1	SM	Multi stemmed at 0.5m above ground level-small diameter deadwood-deadwood and stubs-low branching habit-stunted form to tree	Remove deadwood and stubs and crown lift to 2m to clear for grass mowing	20-30	B1
8	Crab Apple <i>Malus spp.</i>	6	310 280	N 3 E 6 S 5 W 4	1.5	M	Cavities in old pruning wounds-crown weighted south-cable through east side of crown-hollow sounding obtained from below the cavity in the east side	Remove deadwood-reduce and reshape by 1m to control decay in the trunk	10-20	C1

9	Golden Rain Tree <i>Laburnum anagyroides</i>	4	350 230 140	N 2 E 3 S 5 W5	2	M	Multi stemmed at ground level-suppressed by Tree 10-crown weighted west-low branching habit-poor quality tree-cavities and hollowing and significant decay in southern trunk	Fell for safety reasons	<10	U
10	Norway Maple <i>Acer platanoides</i>	9	300 x3 200 x2 170	N 6 E 5 S 6 W5	1	EM	Multi stemmed at ground level-suckers-epicormics-low branching habit-dominant tree at this location	Remove suckers and epicormics	>40	B1
11	Sweet Chestnut <i>Castanea sativa</i>	4.5	230 170	N 4 E 4 S 4 W4	1.5	SM	Low branching habit-interferes with building roof	Crown lift to clear from building line	>40	B1
12	Sycamore <i>Acer pseudoplatanus</i>	8	250	N 4 E 4 S 4 W4	1.5	Y	Roots exposed and mower damaged-cable through crown	Clear route of cable	>40	B1
13	Ornamental Elder <i>Sambucus spp.</i>	4	300	N 3 E 4 S 0 W1.5	1.5	EM	Unable to access-ivy smothering base, trunk and through crown and dominating tree-suppressed and dominated by Tree 14-low crown density-low vigour and vitality-poor quality tree in a state of decline	Advise fell and grub out-poor and short life expectancy	<10	U
14	Sycamore <i>Acer pseudoplatanus</i>	10	180 x2 150 x7	N 5 E 5 S 5 W5	1	SM	Ivy smothering base and trunk-multi stemmed at ground level-suckers- epicormics-cables through lower crown-poor quality tree	Remove ivy and suckers clear route of cables-crown lift to 3m over access roads	20-30	C1
15	English Yew <i>Taxus baccata</i>	4	170	N 2 E 2 S 2 W2	0	Y	Ivy smothering base and trunk-ivy and brambles through trunk-suckers-dieback-dead top-cables through crown-overall a poor quality tree	Remove ivy-remove dieback and brambles-clear route of cables	10-20	C1
16	Sycamore <i>Acer pseudoplatanus</i>	8	200 x2 #	N 2.5 E 2.5 S 2.5 W2.5	4	Y	Unable to access due to dense vegetation and brambles-ivy smothering trunk and dominating-minimal live crown remains-short life expectancy-poor quality tree	Advise fell and grub out as tree has no long term value	<10	U
17	Wych Elm <i>Ulmus glabra</i>	8	150 #	N 2 E 2 S 2 W2	1	Y	Poor quality tree	Fell- will eventually succumb to Dutch Elm Disease	<10	U

3.2 A Tree Root Protection Schedule has been prepared in accordance with BS5837:2012 recommendations (see Plans BJH 01 & 02 at ~~appendix B112~~)

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	Sweet Chestnut <i>Castanea sativa</i>	U	650	7.8	191	NO – will be removed for sound arboricultural reasons regardless of any redevelopment proposals
2	Sycamore <i>Acer pseudoplatanus</i>	B1	650	7.8	191	NO – fairly free rooting to all directions
3	Holly <i>Ilex aquifolium</i>	C1	400	4.8	72	NO – free rooting to all directions
4	Grey Poplar <i>Populus cinerea</i>	C1	670 500	10.0	316	NO – free rooting to all directions
5	Grey Poplar <i>Populus cinerea</i>	U	580	7.0	152	NO – will be removed for sound arboricultural reasons regardless of any redevelopment proposals
6	Common Beech <i>Fagus sylvatica</i>	U	480	5.8	1041	NO – will be removed for sound arboricultural reasons regardless of any redevelopment proposals
7	Sweet Chestnut <i>Castanea sativa</i>	B1	400 350 250 x2 100	7.8	189	NO – free rooting to all directions
8	Crab Apple <i>Malus spp.</i>	C1	310 280	5.0	79	NO – fairly free rooting to all directions
9	Golden Rain Tree <i>Laburnum anagyroides</i>	U	350 230 140	5.3	88	NO – will be removed for sound arboricultural reasons regardless of any redevelopment proposals
10	Norway Maple <i>Acer platanoides</i>	B1	300 x3 200 x2 170	7.2	163	NO – fairly free rooting to all directions
11	Sweet Chestnut <i>Castanea sativa</i>	B1	230 170	3.4	37	NO – fairly free rooting to all directions
12	Sycamore <i>Acer pseudoplatanus</i>	B1	250	3.0	28	NO – fairly free rooting to all directions

13	Ornamental Elder <i>Sambucus spp.</i>	U	300	3.6	41	NO – will be removed for sound arboricultural reasons regardless of any redevelopment proposals
14	Sycamore <i>Acer pseudoplatanus</i>	C1	180 x2 150 x7	5.7	100	NO – there are constraints all around this tree which cancel each other out
15	English Yew <i>Taxus baccata</i>	C1	170	2.0	13	NO – there are constraints all around this tree which cancel each other out
16	Sycamore <i>Acer pseudoplatanus</i>	U	200 x2 #	3.4	36	NO – will be removed for sound arboricultural reasons regardless of any redevelopment proposals
17	Wych Elm <i>Ulmus glabra</i>	U	150 #	1.8	10	NO – will be removed for sound arboricultural reasons regardless of any redevelopment proposals

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	Sweet Chestnut <i>Castanea sativa</i>	U	650	7.8	191	Would be removed for sound arboricultural management reasons regardless of any redevelopment proposals	NO-RSAM
2	Sycamore <i>Acer pseudoplatanus</i>	B1	650	7.8	191	2m to new metal fencing and hedge 11m to existing building	YES (1)
3	Holly <i>Ilex aquifolium</i>	C1	400	4.8	72	1.5m to new metal fencing and hedge 10m to existing building	YES (1)
4	Grey Poplar <i>Populus cinerea</i>	C1	670 500	10.0	316	3.5m to new metal fencing and hedge 8m to existing building	YES (1)
5	Grey Poplar <i>Populus cinerea</i>	U	580	7.0	152	Would be removed for sound arboricultural management reasons regardless of any redevelopment proposals	NO-RSAM
6	Common Beech <i>Fagus sylvatica</i>	U	480	5.8	1041	Would be removed for sound arboricultural management reasons regardless of any redevelopment proposals	NO-RSAM
7	Sweet Chestnut <i>Castanea sativa</i>	B1	400 350 250 x2 100	7.8	189	15m to new fence and hedge line	YES
8	Crab Apple <i>Malus spp.</i>	C1	310 280	5.0	79	2m to new fence and hedge line 4m to new parking bays to north and south	YES (1)

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
9	Golden Rain Tree <i>Laburnum anagyroides</i>	U	350 230 140	5.3	88	Would be removed for sound arboricultural management reasons regardless of any redevelopment proposals	NO-RSAM
10	Norway Maple <i>Acer platanoides</i>	B1	300 x3 200 x2 170	7.2	163	6m to new parking bay 4m to new turning area for cars	YES (1)
11	Sweet Chestnut <i>Castanea sativa</i>	B1	230 170	3.4	37	0m to existing tarmac footpath 1.5m to new parking bay	YES (1)
12	Sycamore <i>Acer pseudoplatanus</i>	B1	250	3.0	28	2.5m to new parking bay 2.5m to new access point for car parking zone	YES (1)
13	Ornamental Elder <i>Sambucus spp.</i>	U	300	3.6	41	Would be removed for sound arboricultural management reasons regardless of any redevelopment proposals	NO-RSAM
14	Sycamore <i>Acer pseudoplatanus</i>	C1	180 x2 150 x7	5.7	100	4m to new access point for car parking zone	YES (1)
15	English Yew <i>Taxus baccata</i>	C1	170	2.0	13	0.5m to existing tarmac surfacing	YES
16	Sycamore <i>Acer pseudoplatanus</i>	U	200 x2 #	3.4	36	Would be removed for sound arboricultural management reasons regardless of any redevelopment proposals	NO-RSAM
17	Wych Elm <i>Ulmus glabra</i>	U	150 #	1.8	10	Would be removed for sound arboricultural management reasons regardless of any redevelopment proposals	NO-RSAM

4.2 **Summary**

	YES Can be retained and fully protected in accordance with BS5837 recommendations - see Tree Protection Plan BJH.03/04 at <i>appendix B13</i>	YES (1) Can be retained and protected in accordance with BS5837 recommendations (see Tree Protection Plan BJH.03/04 at <i>appendix B13</i>) - 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	-	-	-	-
B	7 Sweet Chestnut	2 Sycamore; 10 Norway Maple; 11 Sweet Chestnut & 12 Sycamore	-	-
C	15 Yew	3 Holly; 4 Grey Poplar; 8 Crab Apple & 14 Sycamore;	-	-
U	-	-	-	1 Sweet Chestnut; 5 Grey Poplar; 6 Beech; 9 Laburnum; 13 Elder; 16 Sycamore & 17 Elm

4.3 Seven trees will be removed for sound arboricultural reasons regardless of any redevelopment reasons and the remainder can be retained and protected in accordance with BS5837 recommendations.

4.4 Eight tree will require mitigation measures to be applied to protect their root systems and the Methodology for this is set out under Section 6.0 of this report.

5.0 RECOMMENDED TREE WORKS

No	Species	Tree Works Recommended
1	Sweet Chestnut <i>Castanea sativa</i>	Fell to ground level in a controlled manner.
2	Sycamore <i>Acer pseudoplatanus</i>	No works required at this time.
3	Holly <i>Ilex aquifolium</i>	No works required at this time.
4	Grey Poplar <i>Populus cinerea</i>	Remove the southern trunk for safety reasons making the final cut 0.5m above the main fork so that any resulting decay does not undermine the primary trunk.
5	Grey Poplar <i>Populus cinerea</i>	Fell to ground level in a controlled manner.
6	Common Beech <i>Fagus sylvatica</i>	Fell to ground level in a controlled manner.
7	Sweet Chestnut <i>Castanea sativa</i>	- Crown lift the lower canopy to provide a 2m ground clearance to avoid conflict with grass mowing operations. - Remove all deadwood and stubs for safety reasons.
8	Crab Apple <i>Malus spp.</i>	Reduce and reshape by 1m overall to reduce the stress on the main trunk which has decay pockets.
9	Golden Rain Tree <i>Laburnum anagyroides</i>	Fell to ground level in a controlled manner.
10	Norway Maple <i>Acer platanoides</i>	Remove the basal suckers and crown lift to achieve a 2.5m ground clearance.
11	Sweet Chestnut <i>Castanea sativa</i>	Crown lift to clear away from the building line.
12	Sycamore <i>Acer pseudoplatanus</i>	Prune to clear the route of the cables through the crown.
13	Ornamental Elder <i>Sambucus spp.</i>	Fell to ground level in a controlled manner.

14	Sycamore <i>Acer pseudoplatanus</i>	• Remove the Ivy and clear basal suckers. • Prune to clear the route of the cables through the crown. • Crown lift to achieve a 3m ground clearance.
15	English Yew <i>Taxus baccata</i>	• Remove the Ivy; Brambles and suckers which are choking the tree. • Remove the dieback and lightly reshape the top.
16	Sycamore <i>Acer pseudoplatanus</i>	• Fell to ground level in a controlled manner.
17	Wych Elm <i>Ulmus glabra</i>	• Fell to ground level in a controlled manner.

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 tree RPA's – see **Tree Protection Plan BJH03/04** at appendix B13.

6.5 All Utility Service connections are to be located outside of tree RPA's and there is adequate space on this site to ensure that retained trees are not placed under pressure by this process.

Site Specific

6.6 Trees 8; 10; 11; 12 & 14

There will be a need to work within the RPA of these trees in order to construct the parking bays as proposed but there is a desire to retain them all so mitigation measures will need to be applied. The principle will be for a 'No Dig' Porous solution to be applied here but as yet the exact proprietary brand of materials has not been decided upon, nevertheless the following prescribes the procedures that will need to be followed regardless of which brand is eventually selected for this project. It is suggested that this can be made a Condition of Planning for the full details of the materials to be used to be submitted and approved in writing by the Council before being laid :-

- ***IF** the work is carried out in the growing season then the first operation will be to spray the grass/vegetation with an approved chemical weed killer in a safe and controlled manner – this would normally be with **Glyphosate** as the active ingredient and it would then require a period of ten days for this to be taken down into the root system before skimming the surface.*
- *Skim the existing surface vegetation along the route of the drive/path/parking bay with hand tools **ONLY** to a maximum depth of 50mm.*
- *Backfill any voids and levels changes with washed sharp sand to achieve a basic level grade throughout the area to be worked on – tamp down lightly with hand tools only.*
- *Cover the exposed ground [with a 50mm overlap on either side] with a geotextile membrane pegging the edges down to secure it in place.*

- *Use Railway Sleepers or pinned Kerbing to define the edges of the area within the RPA of retained trees which are to be protected – into this zone lay 150mm minimum depth flexible cellular confinement system (e.g. **CellWeb or GeoCell**) and expand and peg out the cells ready to receive an infill of washed gravel/aggregate - this will be sufficient to absorb vehicular movements whilst permitting water and gaseous exchange - but if levels will permit and subject to client preference this could be topped off with a layer of porous brick setts (e.g. **Aquapave or Aquaflo**) bedded onto sharp sand – or just topped off with a layer of gravel as appropriate.*
- *Adjust any levels differences outside this zone by grading away with topsoil from the raised porous parking bays.*

6.7 **Trees 2; 3; 4; 8 & 14**

There will be a need to work within the RPA of these trees in order to erect the metal post and rail fencing and also to plant the new hedges so mitigation measures will need to be applied as follows :-

- Firstly undertake all tree surgery works that have been prescribed at Section 5 of this report.
- The post holes for the new fence posts will need to be ‘Hand Dug’ and kept to minimum dimensions and NO machinery is to be introduced into the RPA’s to undertake any of this work.
- The holes will need to be lined with thick polythene (to prevent soil contamination) before positioning the posts and concreting them in.
- The hedging work is to be carried out with hand forks only and the soil loosened before a spade is used to clear loose soil. Any tree roots that are encountered are to be carefully teased out and retained intact and NOT severed. The backfilling operation will then ensure that all exposed rooting is incorporated back into the ground.

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 There should be no further requirement for site visits by the Arb Expert.
- 7.3 However, lines of communication will be established with the Site Manager and a Contact Directory compiled and issued to all development team members 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 Arb 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 – Bognor Campus, Upper Bognor Road

• In accordance with the Arboricultural Method Statement Report - 1091.bjh.Nov19 & 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	Local Authority Tree Officer (to be invited to attend) Project Arb Consultant & Site Construction Manager	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.	

8.0 CONCLUSIONS

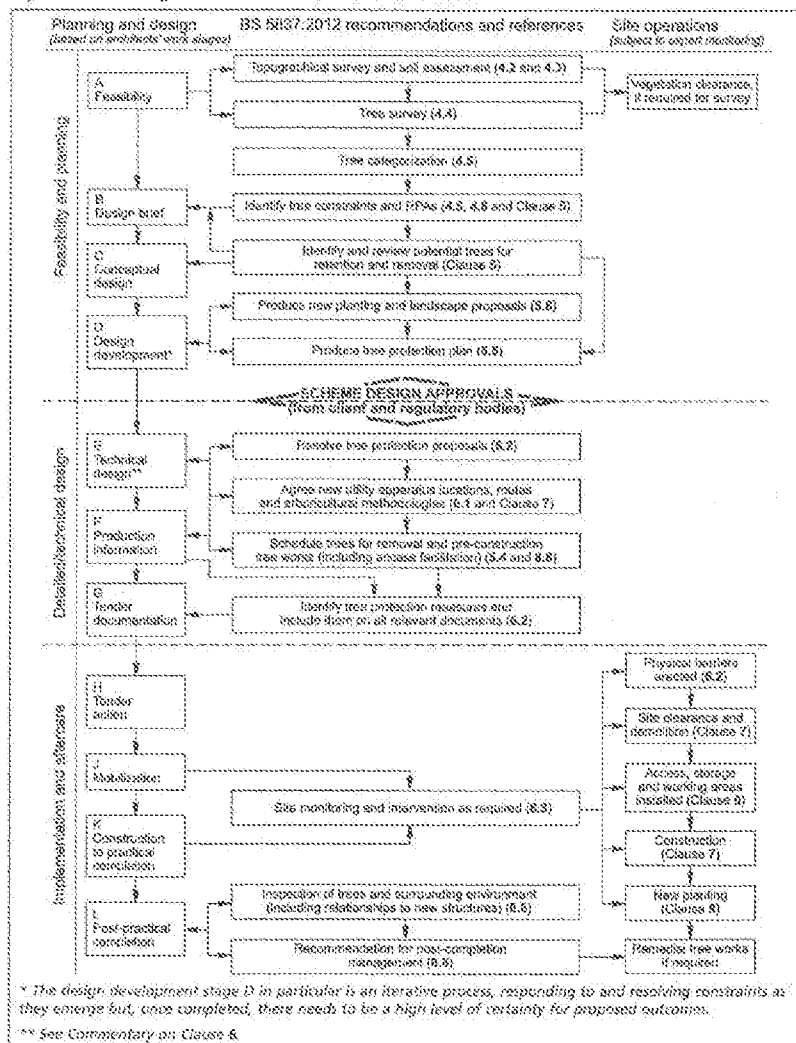
- With this layout there will be no requirement to remove any existing trees to facilitate development works.
- There will however be a requirement to remove seven trees for sound arboricultural management reasons regardless of any redevelopment proposals.
- There will be a need to work within the RPA's of the retained trees and appropriate mitigation measures will be applied to ensure that the retained trees survive the development works in a safe and healthy condition. This includes a 'No Dig' porous solution for the main car parking zone.
- Provided that the above methodology is strictly adhered to and in the manner set out in this report then I would not foresee any detrimental impact taking place that might undermine the health and stability or visual amenity value of those trees shown for retention on 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 :- **■** (dark red); **■** (light green); **■** (mid-blue) and **■** (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  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  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  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 Green
Category  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

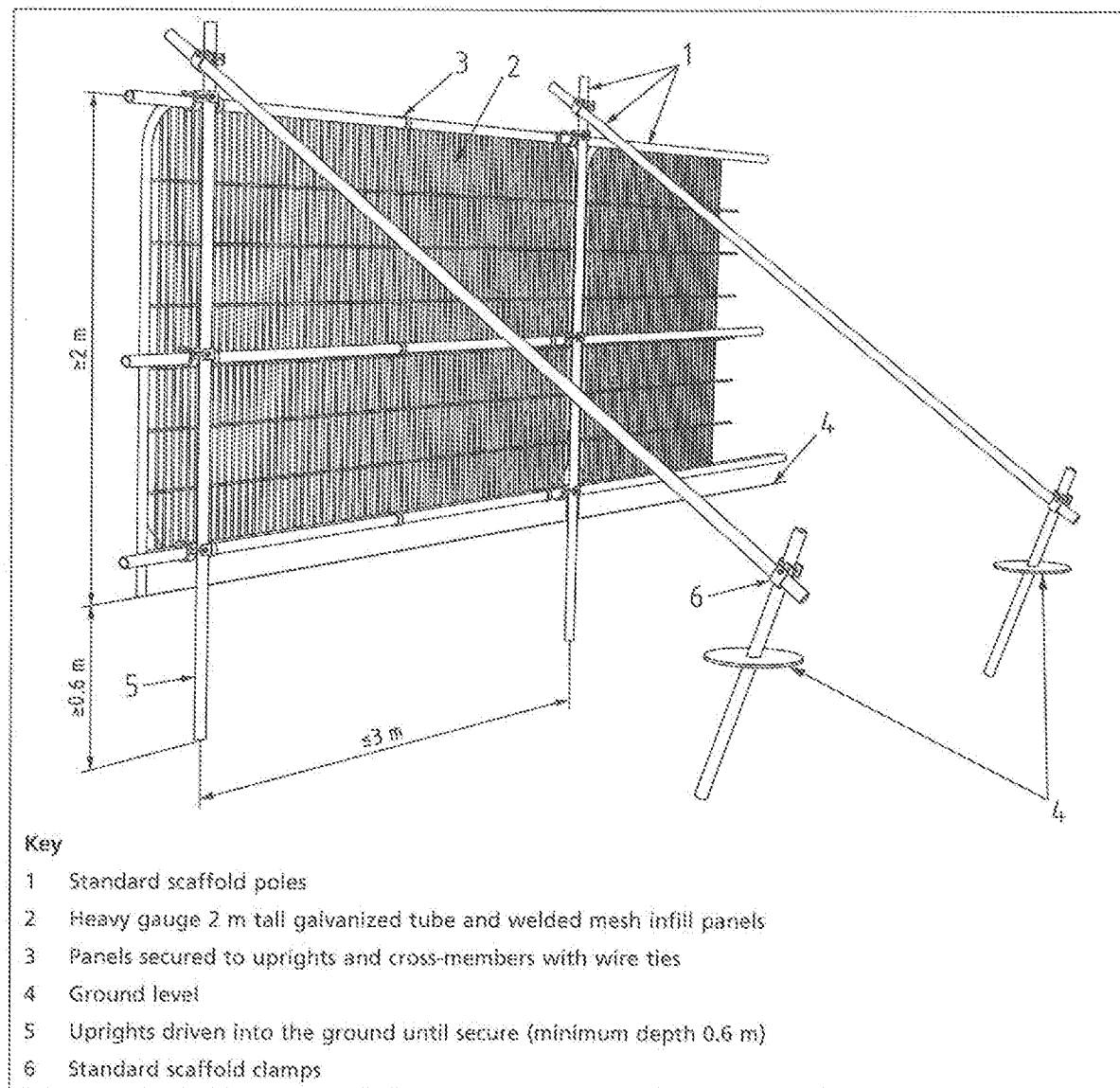


BH 3

Tree Protection Plan BJH 03/04

- + BS5837:2012 – Figures 2
- + Examples of No Dig Surfacing

Figure 2 Default specification for protective barrier





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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