



ARBORICULTURAL ASSESSMENT

Merok House, New Brighton Road, Emsworth

-prepared on behalf of Caldwell Group Ltd. –

- July 2013-

Bernie Harverson M.Arb.

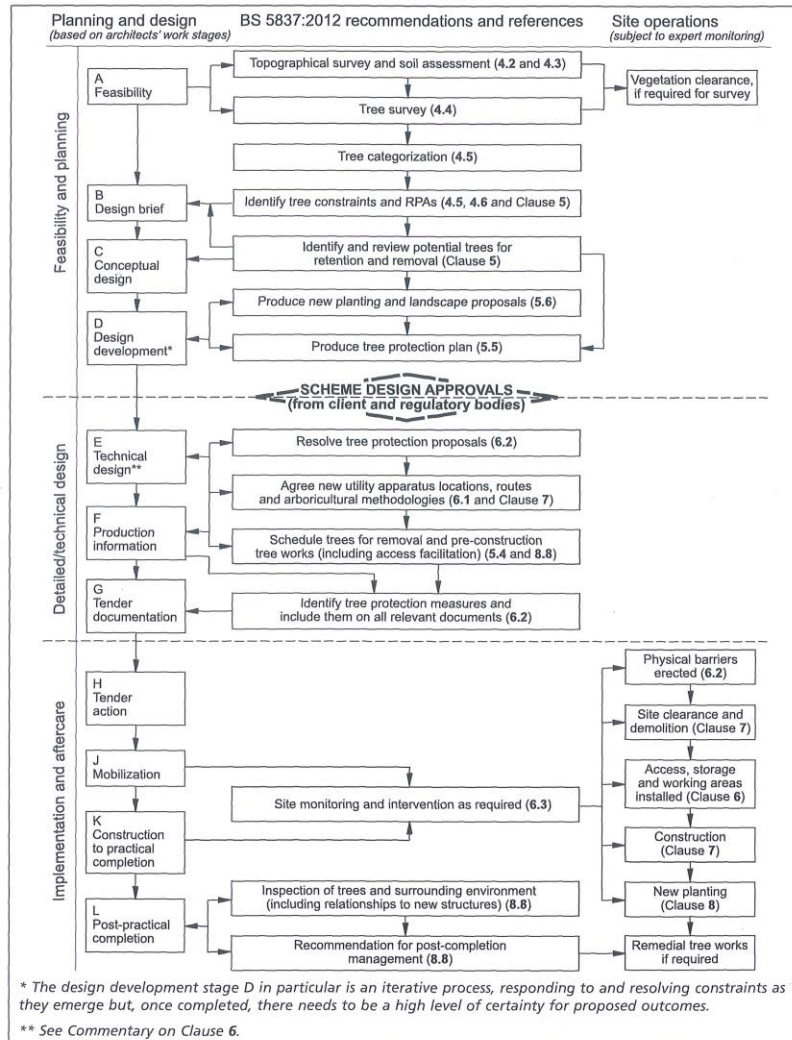
3 foxcombe cottages • south harting • west sussex • gu31 5pl
tel: 01730 825297 • mob: 07875 520881 • email: bernie.harverson@virgin.net • VAT Reg No. 881 5056 16



Tree Survey Schedule

+ T/S Notes & BS5837 Flow Diagram

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



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TREE SURVEY SCHEDULE

Client : Caldwell Group Ltd.

Site Location : Merok House, New Brighton Road, Emsworth

Surveyor : Bernie Harverson *M.Arb.*

Date Surveyed : 18th July 2013

Tree No.	Species	Ht m	Diam mm	Brch Sprd m	GC m	LMB m	LS	Comments	Preliminary Management Recommendations	Rem Con yrs	Cat
Group 1	Mixed Conifers & mature Shrubs	4 to 6	Av 150 x 4	N3 E3 S3 W3	0	0 nesw	EM	Crown shape dictated by group pressure-merged crowns-crown lifted to 2m-low branching habit-dense massing of evergreen shrubs and conifers	No work considered essential at time of survey	30-40	B2
1	Common Ash <i>Fraxinus excelsior</i>	14	560	N6 E6 S6 W6	3	4s	EM	Ivy smothering base and trunk-bifurcated 2.5m above ground level-small diameter deadwood throughout	Remove all deadwood for safety reasons	>40	B1
2	Field Maple <i>Acer campestre</i>	6	280	N3.5 E5 S5 W3.5	1	1.5 nesw	EM	Suppressed by Tree1-crown lifted to 2m over access-low branching habit	No work considered essential at time of survey	>40	B1
Group 2	Common Ash x 4 of <i>Fraxinus excelsior</i>	10	100 to 300	N4 E4 S4 W4	1.5	2 nesw	Y To SM	Ivy smothering base, trunk and through crown-crown shape dictated by group pressure-merged crowns-small and large diameter deadwood-poor quality trees	Sever ivy-remove all deadwood for safety reasons	>40	C2
3	Monterey Cypress <i>Cupressus macrocarpa</i>	11	400	N5 E3 S1.5 W3	0.5	0.5 nesw	SM	Bifurcated 1.7m above ground level-suppressed to south side by other trees-low crown density-dieback in central area-small diameter deadwood throughout	Sever ivy-crown lift to 3m to avoid damage to cars	>40	C1
Group 3	Common Ash x 3 of <i>Fraxinus excelsior</i>	13	Av 220	N5 E5 S5 W5	3	2 nesw	SM	Ivy smothering base-crown shape dictated by group pressure-merged crowns-small diameter deadwood-crown lifted to clear building line	Crown lift to clear from building line	>40	C2
4	Common Ash <i>Fraxinus excelsior</i>	12	300 #	N4 E4 S4 W4	3	3 nesw	EM	Unable to access as tree is fenced off and is possibly off site-smothered in ivy-multi stemmed at 3m above ground level-stubs from old pruning wounds in lower crown-crown lifted to clear building lines to north and south	No work considered essential at time of survey	>40	B1 / C1
5	Bay Laurel <i>Laurus nobilis</i>	7	220	N5 E1.5 S1 W1.5	1.5	1.5s	SM	Suppressed by Oak-previously heavily topped-reduced and reshaped-poor quality tree-has been hard pruned back to boundary line to south side-flattened shape to crown-some fungal dieback of leading shoots	No work considered essential at time of survey	20-30	C1

6	Pedunculate Oak <i>Quercus robur</i>	14	660 450 #	N6 E5 S5 W8	5	4s	M	Unable to access-off site tree-epicormics-decay and cavities-large open cavity at junction of main fork on largest trunk which is probably the reason it was heavily topped out-small and large diameter deadwood and stubs-previously heavily topped	No work considered essential at time of survey	>40	B1
7	Pedunculate Oak <i>Quercus robur</i>	13	1000	N3 E6 S4 W2	2	5e	M	Epicormics-low crown density-low vigour and vitality-significant dieback-small and large diameter deadwood and stubs-previously heavily topped-cavities in old pruning wounds-poor quality tree-has not responded well to heavy topping-minimal live crown area	Remove all deadwood for safety reasons and monitor for future signs of dieback-if this continues it will need to be removed	10-20	C1
8	Bay Laurel <i>Laurus nobilis</i>	8	250	N4.5 E2 S2 W2	0.5	2.5n	EM	Suckers-prolific around base of tree-bifurcated 2m above ground level-leans north east-small diameter deadwood-some fungal dieback of leading shoots	No work considered essential at time of survey	30-40	B1 / C1
9	Elderberry <i>Sambucus nigra</i>	6	160	N3.5 E2 S1 W1	2	2 nesw	SM	Suppressed by Bay-low crown density-dieback-small diameter deadwood throughout-poor quality tree-has been pruned back close to boundary line	Remove all deadwood for safety reasons	10-20	C1
10	Golden Irish Yew <i>Taxus baccata</i> 'Fastigiata'	4	25 x 10	N0.5 E0.5 S0.5 W0.5	0	0 nesw	SM	Multi stemmed at ground level-Bay Laurel has wrapped itself around the north side of the Yew	Advise removal of the Bay to benefit the Yew	>40	B1
11	Golden Lawsons Cypress <i>Chamaecyparis lawsoniana</i>	9	300 #	N1.5 E1.5 S1.5 W1.5	0	0 nesw	SM	Unable to access due to dense vegetation-bifurcated 2m above ground level-patches of shoot browning and dieback throughout	No work considered essential at time of survey	>40	B1
12	Blue Spruce <i>Picea pungens</i> 'Glauca'	9	280	N4.5 E4 S4 W4	1	2 nesw	SM	Ivy smothering base and trunk-roots exposed-mower damage 2m-3m from trunk-some dieback	Re-lay turf building up soil over roots to avoid mower damage	>40	B1
13	Golden Leyland Cypress <i>Cupressocyparis leylandii</i>	2.5	150 x 4	N2.5 E2.5 S2.5 W2.5	0	0 nesw	SM	Suppressed by Tree 13-has been topped out close to ground level and pruned as a rounded shrub form	Prune to clear lower crown of Spruce	10-20	C1
14	Domestic Pear <i>Pyrus domestica</i>	2	100	N0.5 E0.5 S1.5 W1.5	0.5	0.3 nesw	Y	Grafted tree with union visible close to ground level-climber growing through crown on east side-has been pruned for fruit production	No work considered essential at time of survey	>40	C1
Hedge 1	Golden Leyland Cypress <i>Cupressocyparis leylandii</i>	3	Av 90	N0.5 E0.5 S0.5 W0.5	0	0 nesw	Y	Crown shape dictated by group pressure-merged crowns-has been pruned with a flat top and tailored sides as a formal hedge screen	No work considered essential at time of survey	>40	C2

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15	Common Ash <i>Fraxinus excelsior</i>	8	350 #	N4 E1.5 S2.5 W2	3	3 nesw	SM	Unable to access due to off site tree-previously heavily topped to control growth in view of proximity to buildings-poor quality tree	No work considered essential at time of survey	>40	C1
Group 4	Hawthorn (<i>Crataegus</i>) & Bay Laurel (<i>Laurus</i>)	4	Av 170	N2.5 E2.5 S2.5 W2.5	2	0 nesw	SM	Crown shape dictated by group pressure-merged crowns-lower crowns have been pruned as part of the low hedge	No work considered essential at time of survey	>40	C2



Tree Survey Plan



Root Protection Area Schedule



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ROOT PROTECTION AREA SCHEDULE

Client : Caldwell Group Ltd.

Site Location : Merok House, New Brighton Road, Emsworth

Tree No.	Tree Species	Cat	Diam mm	BS5837:2012 Table1 Radial Protection Zone m	BS5837:2012 Table D1 Polygon Area m ²	Is An Offset Required To Cater For Existing Rooting Pattern Restrictions
Group 1	Mixed Conifers & mature Shrubs	B2	Av 150 x 4	3.6	41	NO – there is competition for rooting space between the plants but not sufficient to require an offset
1	Common Ash <i>Fraxinus excelsior</i>	B1	560	6.7	142	NO – there are constraints all around this tree which cancel each other out
2	Field Maple <i>Acer campestre</i>	B1	280	3.4	35	NO – there are constraints all around this tree which cancel each other out
Group 2	Common Ash x 4 of <i>Fraxinus excelsior</i>	C2	100 to 300	1.2 3.6	5 41	NO – there are constraints all around these trees which cancel each other out
3	Monterey Cypress <i>Cupressus macrocarpa</i>	C1	400	4.8	72	NO – there are constraints all around this tree which cancel each other out
Group 3	Common Ash x 3 of <i>Fraxinus excelsior</i>	C2	Av 220	2.6	22	NO – there are constraints all around these trees which cancel each other out
4	Common Ash <i>Fraxinus excelsior</i>	B1 / C1	300 #	3.6	41	NO – there are constraints all around this tree which cancel each other out
5	Bay Laurel <i>Laurus nobilis</i>	C1	220	2.6	22	NO – fairly free rooting to all directions
6	Pedunculate Oak <i>Quercus robur</i>	B1	660 450 #	9.6	289	NO – fairly free rooting to all directions and this is the dominant tree at this location
7	Pedunculate Oak <i>Quercus robur</i>	C1	1000	12.0 Adjusted to 8m in view of decline	452 200	NO – although the RPA requirement is 12m this tree is in a serious state of decline with low vigour and vitality which is why I have adjusted and reduced the RPA
8	Bay Laurel <i>Laurus nobilis</i>	B1 / C1	250	3.0	28	NO – there is competition for rooting space between the plants but not sufficient to require an offset

9	Elderberry <i>Sambucus nigra</i>	C1	160	1.9	12	NO – there is competition for rooting space between the plants but not sufficient to require an offset
10	Golden Irish Yew <i>Taxus baccata 'Fastigiata'</i>	B1	25 x 10	0.9	3	NO – free rooting to all directions
11	Golden Lawsons Cypress <i>Chamaecyparis lawsoniana</i>	B1	300 #	3.6	41	NO – free rooting to all directions
12	Blue Spruce <i>Picea pungens 'Glauca'</i>	B1	280	3.4	35	NO – free rooting to all directions
13	Golden Leyland Cypress <i>Cupressocyparis leylandii</i>	C1	150 x 4	3.6	41	NO – suppressed by T12 and also heavily reduced an topped out
14	Domestic Pear <i>Pyrus domestica</i>	C1	100	1.2	5	NO – free rooting to all directions
Hedge 1	Golden Leyland Cypress <i>Cupressocyparis leylandii</i>	C2	Av 90	1.1	4	NO – there is competition for rooting space between the plants but not sufficient to require an offset
15	Common Ash <i>Fraxinus excelsior</i>	C1	350 #	4.2	55	NO – assumed free rooting to all directions – unable to access
Group 4	Hawthorn (<i>Crataegus</i>) & Bay Laurel (<i>Laurus</i>)	C2	Av 170	2.0	13	NO – there are constraints all around these trees which cancel each other out



Root Protection Area Plan



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 : –
3 Foxcombe Cottages, South Harting, West Sussex GU31 5PL and also at Cedar Court, 5 College Street, Petersfield
- I hold the following arboricultural qualification - **Master of Arboriculture** (Royal Forestry Society – 1976)
- I have **forty four** 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 Surgery Company and twelve years with CBA Trees as an 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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3 foxcombe cottages • south harting • west sussex • gu31 5pl
tel: 01730 825297 • mob: 07875 520881 • email: bernie.harverson@virgin.net • VAT Reg No. 881 5056 16