

B. J. UNWIN FORESTRY CONSULTANCY

Jim Unwin **BScFor, MICFor, FArborA, CEnv.**

Chartered Forester

Arboricultural Association Registered Consultant

Fellow of the Arboricultural Association

Chartered Environmentalist.

Parsonage Farm
Longdon
Tewkesbury
Glos. GL20 6BD

UK

Telephone & Fax 01684
833538

Mobile 07860 376527

E mail Jim@bjunwin.co.uk



Client:



C/o David Jones MRTPI MRICS
Managing Director - Head of Planning
Evans Jones Limited, Royal Mews, St Georges Place, Cheltenham,
Gloucestershire, GL50 3PQ.
DDI: 01242 531 411 E: david.jones@evansjones.co.uk
T: 01242 522822 M: 07899 992 988

Site: **Redcliffe College, Wotton House, Horton Road, GL1 3PT.**

Subject: **BS5837 Tree Survey**
Of sites for proposed re-development including:-

- **Tree Constraints** on site.
- **Arboricultural Implications** of development.
- **Tree Retention & Tree Protection Method Statement.**

Surveyor: Jim Unwin Date: July 2015

Notes:

Copyright: This report is copyright of BJUFC, and licensed only to the client, site and purpose(s) named above. It may not be assigned without the author's permission.

Limitation of Report:-The statements made in this Report do not take account of the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. BJUFC cannot therefore accept any liability in connection with these factors, nor where prescribed work is not carried out in a correct and professional manner in accordance with current good practice. The authority of this Report ceases at any stated time limit within it, or if none stated after two years from the date of the survey or when any site conditions change, or pruning or other works unspecified in the Report are carried out to, or affecting, the Subject Tree(s), whichever is the sooner.

Tree and Woodland Consultancy
Woodland Valuation and Timber Sales
Landscape Management

Visit our website: www.bjunwin.co.uk for more information



Visual Tree
Assessment

Wotton House - Contents

- 1. Instruction**
- 2. Objectives of Tree Survey**
- 3. Survey**
- 4. Results of Survey**
 - 4.1 Physical.
 - 4.1.1 Site details.
 - 4.1.2 Landscape maintenance.
 - 4.2 Landscape Setting of the Site.
 - 4.2.1 Photos.
 - 4.2.2 Land uses beyond the site:-
 - 4.2.3 Prominence of the site in the local landscape:-
 - 4.3 Trees, hedges and large shrubs on or near site.
 - 4.3.1 Trees on site:-
 - 4.3.2 Trees nearby:-
 - 4.3.3 Amenity Value of Trees.
 - 4.4.1 Detailed tree descriptions.
 - 4.4.2 Tree Survey Table.

5.0 Arbicultural Constraints, Impacts of proposed development on trees, and vice versa.

- 5.1 Proposed development.
- 5.2 Tree Constraints and Impacts.
- 5.3 Physical contact of above-ground parts of trees.
- 5.4 Below-ground root spread.
- 5.5 Shading.
- 5.6 Over-bearing & falling material.
- 5.7 Heave.
- 5.8 Amenity value.

6. Arbicultural Method Statement for proposed development.

- 6.1 Supervision.
- 6.2 Tree Management.
 - 6.2.1 Tree Work prior to ground work:-
 - 6.2.2 Treework informatives.
- 6.3 Tree Protection.
 - 6.3.1 Requirement.
 - 6.3.2 Vertical Tree Protection.
 - 6.3.3 Temporary Ground Protection.
- 6.4 Construction Access.
- 6.5 Demolition.
- 6.6 Foundations within RPA.
- 6.7 Drainage.
- 6.8 Service Trenches.
- 6.9 Minimal-dig construction for new access drive / parking.
- 6.10 Tree Work following construction and any hard landscaping of the site:-
- 6.11 New Landscaping.

7. Conclusions.

References

- Appendix I Location map.
- II Constraints Plans for proposed development:-
Tree Plan.
Root Protection Areas plan.
Shading plan.
- III Photos x 8
- IV Development plan.
- V **Tree Retention & Protection Plan** for proposed development.
- VI BS5837 Tree-protection Fencing.
- VII Horizontal Ground Protection: Examples of plastic and aluminium ground guards.
- VIII Examples of minimal-dig ground reinforcement: Cellweb and gravel trays.
- IX Compressed-Air Soil Knife.
- X B J Unwin Forestry Consultancy professional CV.

1. Instruction

- 1.1 Evans Jones Ltd is advising Redcliffe College on possible re-development of parts of the site.
David Jones has asked B J Unwin Forestry Consultancy to advise on tree issues on this site, subject to quote.
- 1.2 The local authority (Gloucester City Council) will require a tree impact assessment and tree protection method statement as part of application to change the site layout. The local authority may require mitigation by new planting for any trees lost as part of re-development of the site.
- 1.3 Therefore methodology of the report below follows *BS5837:2012 Trees in Relation to Design, Demolition & Construction*.

2. Objectives of Tree Survey

- 2.1 Objectives of Tree Survey:-
 - To provide an accurate measured survey of significant trees to BS5837, As per figure 1 flowchart overleaf.
 - In addition, the site's trees have been considered in their landscape setting, and photos taken to show internal and external parts of the site from various viewpoints.
 - The report aims to inform decision-making of Architects and Planners to:-
 - incorporate worthy trees within any development plans and associated landscape schemes,
 - protect them during development and
 - assist with planning of ongoing tree maintenance.

Please note, BS5837 is an iterative process: which cannot all be included in one report.

Stage 1:- **Tree survey and preliminary constraints plan (TSCP).**

Stage 2 has several sequential phases:-

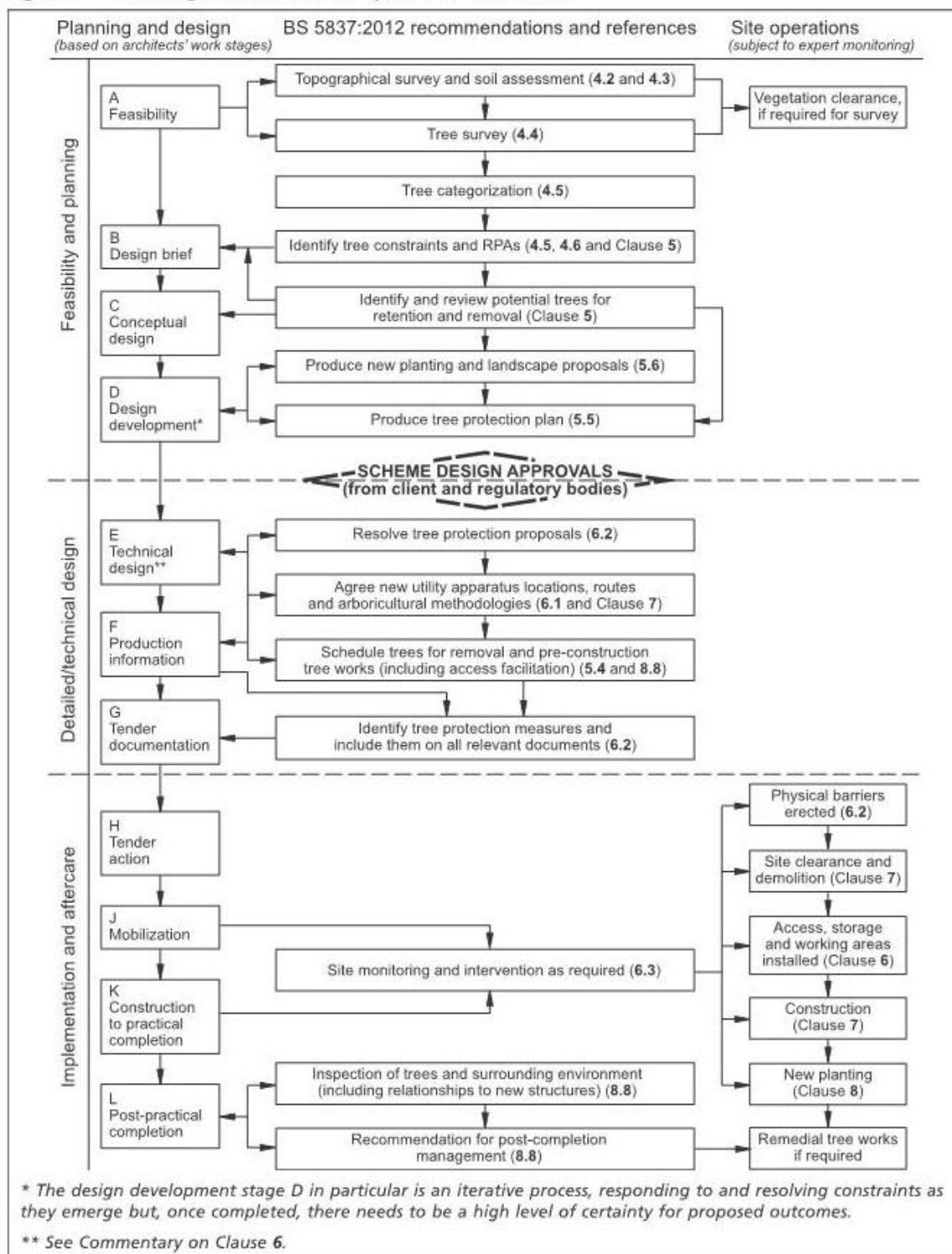
- **Design review to test proposed layout.**
- **Arboricultural Implications Assessment (AIS).**
- **Arboricultural Method Statement (AMS) & Tree Protection Plan (TPP).**
- **Discharging planning conditions.**
- **Implementation and supervision of tree work and protective measures.**

So BS5837 requires an iterative progression interlocking with other specialists in the developer's team: plus interaction with the lpa staff (engineer, planner and tree officer).

- This report is TSCP + AIS + AMS + TPP.

- 2.2 We have used topo plan by **A D Horner 02.1186-01-A of 2002**, updated for constraints plans. Our Protection Plan is based on **?????** (reproduced in the appendices).

Figure 1 The design and construction process and tree care



3. Survey

- 3.1 The survey was conducted from ground level, involving visual observation; and measurements of crown spread in four directions, height and dbh with tapes (and laser Disto, & hypsometer if required) (Visual Tree Assessment: Mattheck and Breloer, 1994 and Lonsdale, 1999). Bases of suspect trees were sounded with a hammer and probed for defects with a chisel and steel rod.
- 3.2 This survey was carried out, unaccompanied, on 24th June 2015 by Jim Unwin (Professional CV in appendices), .

4. Results of Survey

4.1 Physical

4.1.1 Survey Site details:

The site inspected is a large mature institutional plot, rectangular in shape about 85m x 150m in size.

The site is flat and level and long ago was levelled so the western boundary is a retaining wall dropping 1m to 1.5m down off-site.

Buildings and parking occupy the northern and eastern edges. The rest of the site is a large garden, comprising central lawn with fringing shrubberies.

Underlying Solid geology is:- Blue Lias Formation And Charmouth Mudstone Formation (undifferentiated) - Mudstone. Sedimentary Bedrock formed approximately 183 to 204 million years ago in the Jurassic and Triassic Periods. Local environment previously dominated by shallow lime-mud seas.

Superficial (Drift) deposits over most of the site are: Cheltenham Sand And Gravel - Sand And Gravel. Superficial Deposits formed up to 3 million years ago in the Quaternary Period. Local environment previously dominated by subaerial slopes.

Therefore, subsoil should be coarse-textured with no volume-change potential, until the underlying mudstone is reached.

4.1.2 Recent Landscape Maintenance:

The site is reasonably well-managed. Landscape expenditure has been limited over recent years.

4.2 Landscape Setting of the Site

4.2.1 Photos:

Please refer to photos in Appendix III.

4.2.2 Land uses beyond the site:-

To the west below the retaining wall is the hospital carpark.

To the south are large hospital building beyond a high brick wall.

To the north and east are roads.

The front of the site is prominent off Horton Road, and the eastern boundary is seen off the hospital site.

The rest of the site is quite secluded.

4.3 Trees, hedges and large shrubs on or near site.

4.3.1 Trees on site:-

- London plane T78 is a stunning tree.
- The plane dwarfs the many large and fine trees lining the site's western, southern and eastern boundaries.
- Of note are several mature to late-mature common limes of similar age, which stand in the southern and western boundary shrubberies together with large sycamores, beech, horse chestnut, Corsican pines and many yews.
- Mulberry T77 is an interesting 'Phoenix' tree, collapsed but re-generating on the lawn.
- There is younger planting such as limes T2 & T3 on the road frontage and good copper beech T44 towards the rear.

- Much of the shrubbery is overgrown with shrubs and small trees. Severe pruning would be desirable, plus removal of elders and tree saplings.

4.3.2 Trees nearby:-

- There are few trees close to the west, north and eastern boundaries.
- The southern boundary is lined with many mature trees which merge with trees on site.

4.3.3 Amenity Value of trees

Amenity can be visual, functional (eg screening), habitat or historic:

- Plane T78 is a massive tree but not easily see from outside the site.
- Eastern frontage trees (limes, cedars, holm oak and Wellingtonia) are very prominent in the street scene.
- Most trees on site provide a setting for the large buildings.
- A few such as palm T82 and birch T83 are completely out-of-character with this grand setting.

4.4 Detailed Tree Descriptions

4.4.1 Trees on, or potentially influencing the site, are individually described in the table below, and shown on the plans in Appendix II.

Age class is described as:-

Sap:	Very young tree, or sapling, one-five years old.
Y:	Young tree less than fifteen years old and <1/3 fully grown.
Sm:	Semi-mature tree having attained 1/3 to 2/3 full stature and 1/3 to 1/2 estimated lifespan.
Em:	Early mature: tree at 2/3 to virtually full size, and halfway through its safe life.
M:	Mature: fully-grown tree with useful life expectancy.
Lm:	Late-mature: fully grown, of declining vigour, but still healthy.
Om:	Overmature tree: fully grown and declining in health (but may still have many years of safe life).
Vet:	Veteran: usually very old; of significant historic, habitat or cultural value.

Health / Structural Condition:-

Self-explanatory:- Good, Fair, Poor, Dead / dying.

Remaining Safe Useful Life Expectancy: SULE

Prediction of safe useful years of life in its location, estimated as:-
<5 years, <10 years, 10-20 years, 20-40 years, >40 years.

Retention categories, based on BS 5837 Section 4.5, are:-

Trees to Retain:

A =	High quality or value >40yrs safe life:	Light Green*
B =	Moderate quality or value >20yrs safe life:	Mid Blue*
C =	Low quality or value >10yrs safe life or young trees <150mm stem diameter.	Grey*

Trees to Remove:

U =	<10yrs safe life or should be removed for sound arboricultural reasons:	Dark Red*
------------	---	-----------

(*Colour marking on relevant Tree plan)

Sub-category for retention (can be more than one category for a tree):-

- 1 = Arboricultural Value
- 2 = Landscape Value
- 3 = Cultural and/or Habitat Conservation Value

BS 5837:2012 Root Protection Area:

The estimated volume of soil 1m deep required to sustain the tree, usually expressed as a disc 1m deep centred on the tree's trunk.

THE RPA CAN BE A VARIED SHAPE ENCLOSING THE CORRECT ROOTABLE AREA: but SHOWN AS A CIRCLE FOR CONVENIENCE. Calculated as:-

Single-stem tree, radial distance = 12 x stem diameter at 1.5m ht.

Multi-stem trees 1-5 stems = Square root of (sum of individual stem diameters squared).

> 5 stems = Square root of (average dbh squared x number of stems).

4.4.2

Wotton House - BS5837 Inspection - BJUFC – 24th June 2015

No. T=tree S=shrub H=hedge G=group	Species	Dbh (stem diam @ 1.5m ht) mm.	Total height. Ht to base of crown. Est Ht in 10 yrs. m.			Crown radii m.				Age class	Health	Structural Condition	SULE	Comment (All are in average to good health and condition, unless stated otherwise.)	Ret-ention category A (best) to C. U = (remove) Sub- category 1, 2 or 3	BS 5837 Root Prot- ection Area. m.	Recommended WORK excluding development.
						N	E	S	W								
T1	Corsican pine	Est 550	18	4	19	5	5	5	5	M	F	F	10- 20	Off-site.	B1	6.6	
T2	Small- leaved lime	350	11	2	14	3.5	3.5	3.5	3.5	Sm	F	F	>40		A2	4.2	
T3	Small- leaved lime	370	11	2	14	3.75	3.75	3.75	3.75	Sm	F	F	>40		A2	4.5	
H4 H5	Lonicera	50	1	0	1	0.4	0.4	0.4	0.4	Em	F	F	10- 20	Low trimmed hedge.	C2	1.0	Trim annually to 'A' shape profile.
T6	Lebanon cedar	720	15	4	15. 5	7	6	6	6.5	M	P/ F	F	10- 20	Thinning crown.	B2	8.7	
T7	Holm oak	630	12	2	14	5.5	5.5	5.5	5.5	M	F	F	>40	Crown reduced. Dense canopy.	A2	7.6	
T8	Lebanon cedar	720	15	4	16	6	6	6	7.5	M	F	F	20- 40		B1	8.7	
T9	Yew	290	9.5	2	0	1.5	1.5	1	1.5	M	P/ D	F	<10	Severe dieback.	C2 / U	3.5	Fell soon.

T10	Yew	280	10	1.6	0	1.5	2.5	2	1.5	M	P	F	<10	Sever dieback.	C2 / U	3.4	Fell soon.
T11	Yew	400	9	2	8	4	1	2	6	M	F	P	>40	Extreme lean north west.	C1	4.8	Remove all of carpark side to leave upright upper stem only.
T12	Box	150, 160	5	1.5	3	2	4.5	1.5	0.5	M	P/F	P/F	20+	Lean east. Dieback.	C2	2.7	Prune down to 2.5m bush: allow to re-shoot.
T13	Wellingtonia	1200	22	5	22	5	5	5	5	M	F	F	20-40		A1 / A2	14.4	
T14	Yew	200	9	2	9.5	2	2	2	2	Em	F	F	>40	Suppressed.	B2	2.4	
T15	Lime	680	18	3	18	5	6	6	6	M	F	P/F	20+	Lesions of dead cambium south side at base. Plus reaction wood buttresses. Could indicate root problem. But good crown condition.	B2	8.2	Monitor crown condition. If any deterioration carry out Resistograph or PICUS basal investigation.
T16	Elder													Over footway.	U		Remove.
T17	Yew	260	8	2	8	2	3	3	1.5	Em	F	F	>40		B2	3.2	
T18	Yew	280	9	3	9	2	2	2	2	Em	F	F	>40		B2	3.4	
T19	Yew	410	9	1	9	4	3	4	6	M	F	F	>40		B2	4.9	
S20	Cherry laurel	190, 240, 240	8	2	3	9	2	0	3	M	F	P	10-20	Lean north.	C1	4.7	Coppice.

T21-25	Hollies x 5	250	8	1	9	2	2	2	2 ext	Em	F	F	20-40	Wide-spaced clump in shrubbery.	C2	3.0	
T26	Lawson cypress	320	12	3	12	1.5	1.5	1.5	1.5	M	F	F	20-40	Slender cultivar.	B1	3.9	
T27	Common lime	650	16	3	17	7	6	6	5	M	F	F	20-40		B1	7.8	
T28	Yew	290	10	2	10.5	4	4	4	4	M	F	F	>40		A2	3.5	
T29	Sycamore	200, 220	15	2	17	5	4	1	4	Sm	F	F	10	Self-sown on edge of shrubbery.	C1	3.6	Consider removal.
T30	Sycamore	660	17	3	17.5	8	6	6	5	M	F	F	20-40		B1	8.0	
T31	Laburnum	170, 220	8	2	8	3	3	3	0	Em	F	F	10-20	Crossing limb strengthens weak basal fork.	C1	3.4	
T32	Small-leafed lime	720	20	2	21	8	6	6	6	M	F	G	>40	Good.	A1	8.7	
T33	Horse chestnut	930	19	2.5	19	11	6	6	7	Lm	F	G	10-20	Lime to north too heavy.	B1	11.2	Reduce bottom limb to north by half length.
G34	False acacia & holly	220	10	3	10	2	2	2	4	Em	P/F	P/F	10-20	Small variegated holly and false acacia.	C2	2.7	
T35	Variegated holly	300	9	1	10	3.5	2.5	2.5	2.5	Em	F	G	>40	Pretty.	B1	3.6	Cut elders out of canopy.
T36	Corsican pine	790	18	7	18	6	5	5	5	M	F	F	10-20		B1	9.5	

T37	Beech	320	15	3	17	5	4	3	4	Em	F	F	>40	Lean north. By Pet graveyard. 2m-tall boundary wall leans south.	B1	3.9	
T38	Beech	580	17	2.5	19	7	5	4.5	5	Em	F	P/F	>40	Narrow fork at 2.5m: so not A1. By Pet graveyard.	B1	7.0	
S39	Hazel	10 stems x 60	5	1.5	5	4	3	2	2	M	F	F	20-40	Shrub.	C1	2.3	
T40	Silver maple	780	21	2	23	8	8	7	7	M	F	F	20-40	Big and good, but not long-lived, so B1 not A1.	B1	9.4	
T41	Wild cherry	270	10	2	10	3	3	5	4	Em	F/P	F	10	Thin crown.	C1	3.3	
T42	Flowering cherry	260	7	2	8	4	3	5	4	Em	F	F	10-20		C1	3.2	
T43	Common walnut	330	11	3	14	3	4	5	5	Em	F	F	>40		B1	4.0	
T44	Copper beech	380	11.5	2	14	5	4	4	4	Sm	F	F	>40	Good.	A1 / A2	4.6	
SG45	Box	200	4.5	0	5	1.75	1.75	1.75	1.75 ext	M	F	F	>40	Overgrown hedge.	C2	2.4	Clean rubbish vegetation out of base.
T46	Common lime	640	13	1.8	13	5	5	5	5	M - Lm	F	F	>40	Old but good.	B1	7.7	Prune off basal suckers annually. Coppice five smaller lime stems 2.5m north west.
T47	Ash									Y				Sapling too close to retaining wall.	U		Fell and poison stump.

T48	Yew	300	9	1.5	9	3	3	3	3	M	P/ F	F	>40	Scruffy.	B2	3.6	
T49	Yew	340	7	0.5	7	3	4	2	3	M	F	P/F	>40	Old stem damage. Scruffy.	B2	4.1	
T50	Yew	180, 250	7	0	7	4	5	3	4	M	F	P/F	>40	Stem dieback or vandalism. Scruffy.	B2	3.7	
T51	Sycamore	670	12	3	12	6	6	6	6	Lm	F	F	20- 40	Old but okay.	B1	8.1	
T52	Red horse chestnut	280	7	2	9	3	4	3	1.5	Sm	F	F	>40	Pushed east by other trees.	C1	3.4	
T53	Lime	250	5	2	7	3	4	2	2	Y/ SM	F	F	>40	Suppressed by sycamore.	C1	3.0	
T54	Yew	400	10	1	10. 5	3	5	4	4	Em	F	F	>40		A2	4.8	
T55	Yew	260	9	1	9	2	4	2	2	Em	F	F	>40		B2	3.2	
T56	Yew	250, 300	10	1.5	10	2	5	3	3	Em	F	F	>40		B2	4.7	
T57	Hawthorn	250	5	2.5	6	2.5	1.5	2.5	2.5	Sm	F	F	>40		B2	3.0	
T58	Lime	290	10	3	13	1.5	1.5	1.5	4	M	F	F	20- 40	Lean west over retaining wall.	C1	3.5	
T59	Holly	130, 130	7	1	7	2	1	2	2.5	Em	P/ F	F	20- 40	Suppressed.	C1	2.2	
T60	Variegated holly	100, 170	5	1	5	2	4	1	1	Em	F	F	>40	Small but pretty. Larger stem leans north east.	C1	2.4	Prune off leaning stem.
T61	Yew	320	9	2	9	3	4	2	3	Em	F	F	>40		B2	3.9	

T62	Common lime	120, 340, 410	14	3	17	5	6	5	4	Em	F	F	>40	May be stump regrowth? Good potential.	A2	6.6	
T63	Common lime	Est 700	15	3	15	6	5	6	6	Lm	F	F	>40		A2	8.4	Trim off basal suckers annually.
T64	Yew	180, 220	7	1	7	5	3	2	4	Em	F	F	>40	Pushed north by lime.	B2	3.4	
T65	Yew	Est 300	4	0	4	5	3	2	1	Em	P	P	20	Ivy smothered.	C1	3.6	Remove ring of ivy from ground level up to head height asap.
G66	Elders x several & pyracantha									M				Self-sown against retaining wall and old building.	U		Fell and poison stumps.
T67	Beech	450	14	2	16	5	5	5	6	Em	F	F	>40		A1	5.4	Remove heavy bottom limb over off-site parking.
T68	Common lime	Est 700	16	2	17	5	5	4.5	4.5	Lm	F	F	>40	High polled previously.	A2	8.4	Trim off basal suckers annually.
T69	Horse chestnut	Est 700	16	2	17	5	5	5	5	M	F	F	10-20	4m off-site.	B2	8.4	
T70	Yew	330, 430	9	2	10	5	5	5	4	M	F	F	>40		A2	6.5	
T71	Golden Lawson cypress	150, 170	5	0	6	2	2	2	2	Em / M	F	F	>40	Variegated dwarf conifer.	B2	2.8	
T72	Common lime	Est 800*	15	2	16	5	6	6	5.5	Lm	F*	F*	20-40*	*unable to access base. But no obvious signs of decline.	B1	9.6	Trim off basal suckers annually.

T73 T74	Domestic apples	5 stems x 90	5	1.5	5.5	2	2	2	2	M	F	F	10-20	Trimmed for ornament.	C1	2.4	
T75	Yellow Buckeye	220	5.5	1.5	8	2.75	2.75	2.75	2.75	Y	F	F	>40	Horse chestnut variety. Pretty.	C1	2.7	
T76	Lilac	220	4.5	1.7 5	4.5	2.5	2.5	2.75	1.75	M	F	F	10-20	Small tree.	C1	2.7	
T77	Common Mulberry	6 stems avg 250	9	0	10	4	5	10	5	M / Vet	F	F	>40	Was two stems. South east stem collapsed and layered. So now huge bush. Potential veteran. **or canopy extents whichever is greater.	A2	7.3**	
T78	London plane	1630	23	3	23	14	15	15.5	14	M / Lm / Vet	F	F	>40	Huge and in good condition.	A1 / A2 / A3 historic	15.0	
T79	Mulberry	360	6	1.5	8	4	5	4	4	Em	F	P/F	>40	Has suffered stems breakage.	B1	4.4	
T80	Fig	7 stems x 80	3	0.5	4.5	3.25	3.25	3.25	3.25	M	F	F	10-20	Dense.	C1	2.5	Thin out congested canopy.
T81	Olive	5 stems avg 60	5	1	6	2.25	2.25	2.25	2.25	Y	F	F	10-20	May not be hardy?	C1	1.6	
T82	Palm	200	5	2	6	1.5	1.5	1.5	1.5	Em	F	F	10	Small, ugly.	C1	2.4	

T83	Silver birch	230	9	1.5	12	2.5	2.5	2.5	2.5	Sm	F	F	10-20	Good tree, but inappropriate location in shrub bed.	C1	2.8	
H84	Cotoneaster & privet	100	2.5	0	2.5	0.6	0.6	0.6	0.6	M	F	F	20-40	Trimmed hedge.	C2	1.0	Trim annually to 'A' shape profile. Cut out sycamore, elder etc at ground level.

End of table.

If client or local authority have any further queries please do not hesitate to contact us.

Yours sincerely,



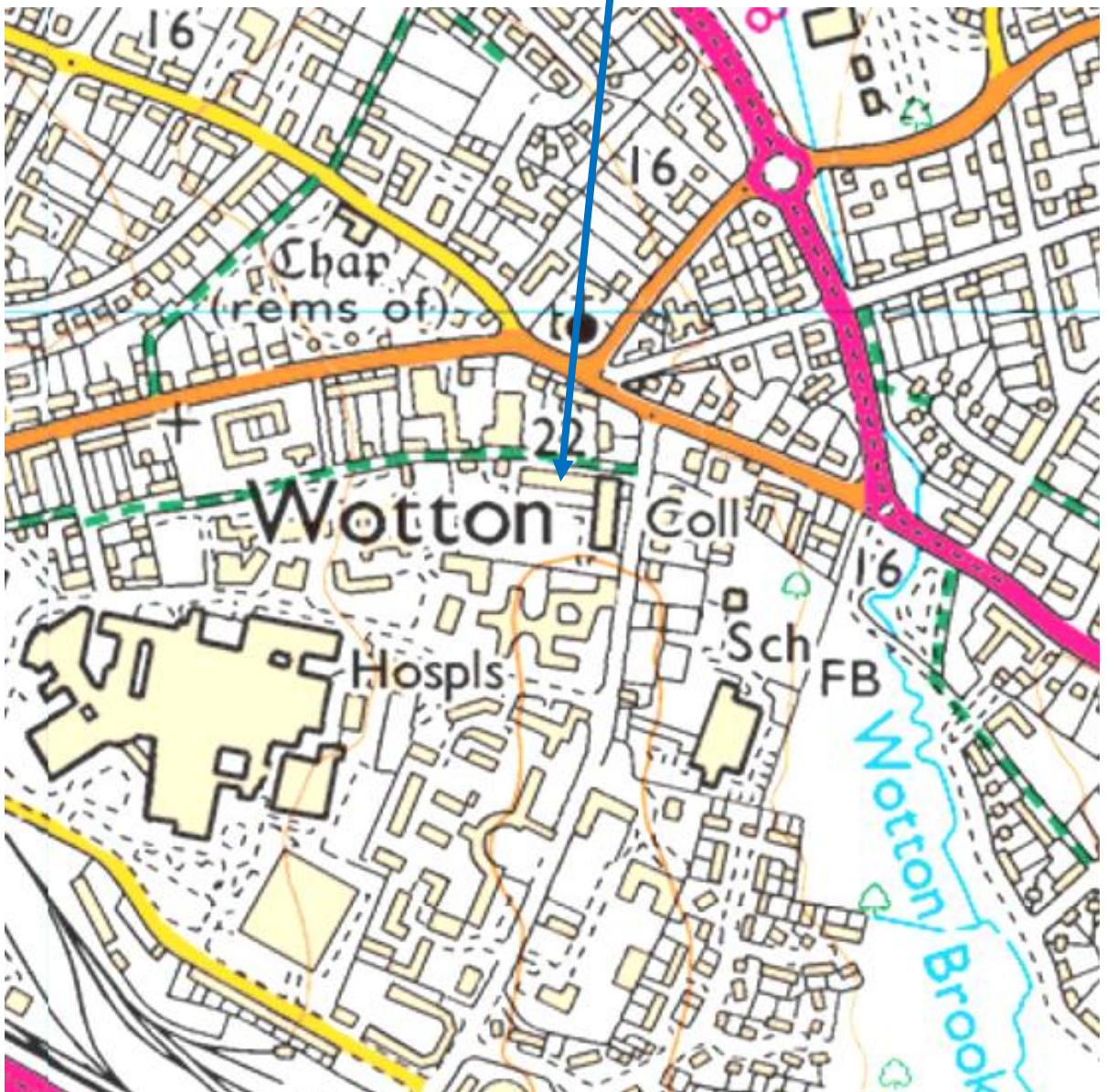
B. J. Unwin Forestry Consultancy

References:

- "The Body Language of Trees". Claus Mattheck and Helge Breloer. HMSO 1994.
- "Principles of Tree Hazard Assessment and Management". David Lonsdale. HMSO 1999.
- BS 3998: 2010 "British Standard Recommendations for Treework".
- BS 5837: 2012 "Trees in Relation to Design, Demolition & Construction".
- BS 8545 "Trees: from nursery to independence in the landscape – Recommendations". BSI 2014.
- NJUG Volume 4: 2007 "Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees". NJUG, 30 Millbank, London, SW1P 4RD.
- "Trees and Development". Nelda Matheny and James R Clark. ISA. 1998.
- BS 8206:1992 "Lighting for buildings".
- BRE guide 209 (2002) "Site Layout planning for daylight and sunlight".
- NHBC Chapter 4.2, "Building Near Trees". National House Building Council, 2013.
- "Tree Roots in the Built Environment". J Roberts, N Jackson & M Smith. R.A.T.8, TSO (The Stationary Office, London, 2006).
- "Treework at Height" Industry Code of Practice. Arboricultural Association. 2014.

Appendix I

Site location



Google Earth images (2013).
Taken summer early morning.



Appendix II

Constraints plans :-

- **Tree Plan**

Retention categories, based on BS 5837 Table 1:-

A = High quality & Value (>40yrs life): Green.

B = Moderate quality & Value (>20yrs life): Blue.

****C = Low quality & Value (>10yrs life): Grey.**

U = Trees to be removed (<10yrs life): Red.

****PLEASE NOTE. FOR CLARITY, C-CATEGORY TREES MAY NOT BE COLOURED.**

- **Root Protection Areas Plan**

RPA = circles.

See Tree Table for dimensions.

and

- **Theoretical Shading Plan**

= quadrant of tree height in ten years' time from north west (mid-morning) to due east (evening). This is a shadow pattern for 1 x tree height from 10.00-18.00hrs from May to September.

Separate plans are not included in pdf format of report.

Insert plans here in paper copy of report:-



P1: View south down Horton Road. Limes T2 & T3 centre.



P2: View north up Horton Road. Yews T17-17 left, lime T15 and Wellingtonia T13 centre.



P3: View south east to poor yews T9-11 and overgrown laurel S20.



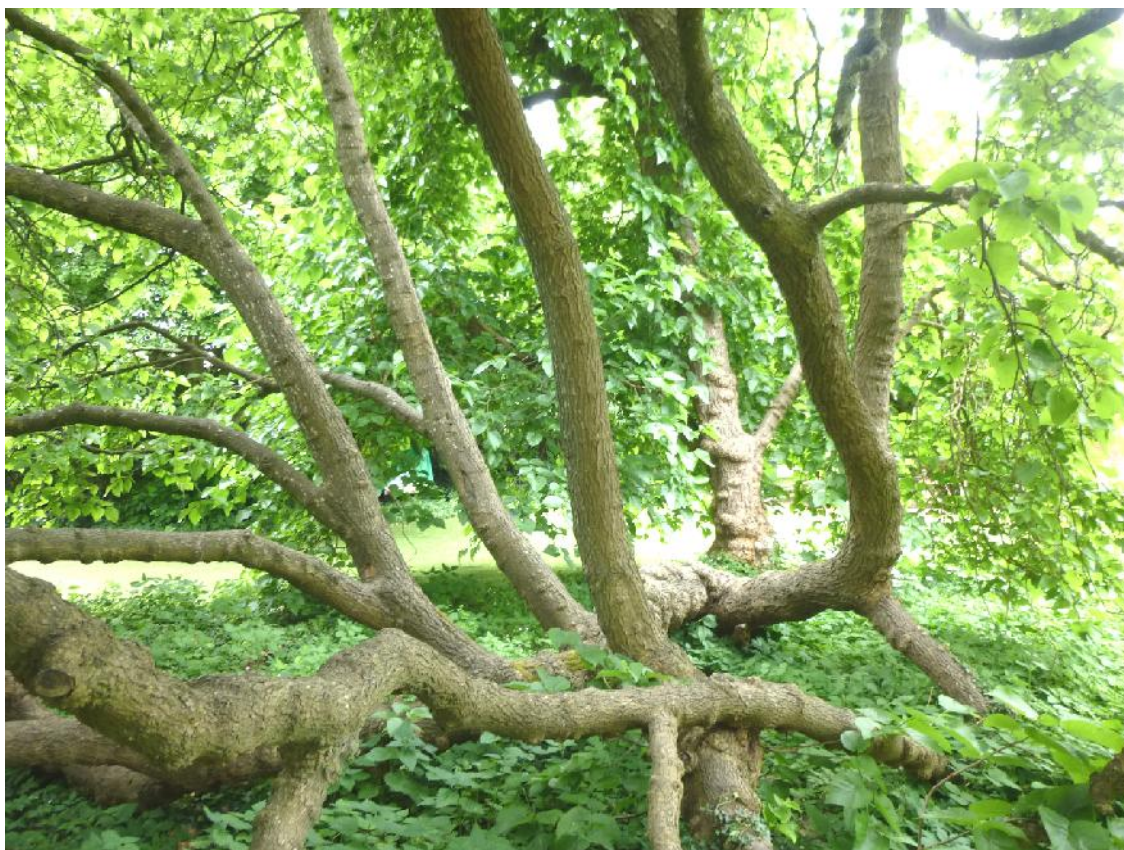
P4: View south west over retaining wall in SW corner.



P5: View south west to good copper beech T44, big silver maple T40 and older lime T46 right.



P6: View west across lawn to mature tree belt left and plane T78 centre.



P7: Collapsed mulberry T77.



P8: NW corner with older lime T68 at rear and good yew T70 right.

Appendix X

B J UNWIN FORESTRY CONSULTANCY,

Head office: **Parsonage Farm, Longdon, Tewkesbury, Gloucestershire. GL20 6BD.**

Tel / Fax: 01684 833538. Home Tel: 01684 833795. Mob: 07860376527. E-mail: Jim@bjunwin.co.uk

Associate office: **1 Market Place Mews, Henley-on-Thames, Oxfordshire, RG9 2AH.**

Principal: **Jim Unwin BScFor, MICFor, FArborA, AARC, CEnv.**
Chartered Forester,
ICF Registered Consultant,
Fellow of the Arboricultural Association,
Arboricultural Association Registered Consultant
Chartered Environmentalist.

<i>From:</i>	Jim Unwin	<i>To:</i>	Prospective Client
<i>Date:</i>	May 2015	<i>No. of pages:</i>	2
<i>Subject:</i>	<u>Professional CV</u>		

Below are set out **B J Unwin Forestry Consultancy's** competences and experience.

Insurance:-

£5m Public Liability & £2m Professional Indemnity (renewed June).

Personnel:-

B J Unwin (born 1956) started his forestry career as a tree surgeon and landscape contractor in 1975. He studied forestry at Aberdeen University from 1977 to 1981, worked for Unilever as a Forestry Manager in the Solomon Islands from 1981 to 1983. Since then he has been based in Gloucestershire assisting clients to manage their woodland, trees and vegetation throughout Southern Britain, and occasionally in northern England, Scotland and Northern Ireland.

In the mid-1980s to mid-1990s for a period of about ten years he taught chainsaw, tree felling and tree surgery courses at Worcestershire Agricultural College on a part-time basis. He was assessed and passed as a LANTRA assessor in these skills, and held NPTC certificates of competence in chainsaw use on the ground and up trees. He now works as a tree consultant / manager / contract manager to a range of clients listed below.

He works with two self-employed Level-3 arboriculturalists of 35 combined years' experience:-

Jasper Fulford-Dobson Professional Member of the Arboricultural Association - Associate Member of the Institute of Chartered Foresters - Professional member of the International Society of Arboriculture - Technicians Certificate (ArborA) 2005, now regarded as NQF "level 4" - Professional Tree Inspection Certificate (LANTRA) 2013, &

David Shephard BSc Rural Environmental Science - AA Tech Cert AA PTI - Professional Tree Inspection Certificate (LANTRA) 2013) and was Arb Assoc Approved Contractor.

plus a secretary/technician; calling in extra help as required (eg ecologist or arboricultural assistant).

On bigger projects he regularly works as a part of a multi-disciplinary team.

Current BJUFC qualifications are:-

BSc Forestry Hons 1st Class, Aberdeen 1981.

Chartered Forester, 1986.

Fellow of the Arboricultural Association, 1995.

Licensed Subsidence Risk Assessor, 1997-2001 (scheme closed in 2001).

Completed Training in September 2002 to Prepare Native Woodland Plans for CCW and FC in Wales.

Arboricultural Association Registered Consultant, 2004.

LANTRA certificate for Arboriculture and Bats, BJU in 2005.

Examined and approved to submit Welsh WGS as Management Planner and PAWS Assessor, 2006.

Joined Utilities Vendor DataBase, Supplier No: 88101 in Feb 2006 (left 2010).

Training and Certification in basic CAD operation 2006.

Chartered Environmentalist April 2008.

Woodfuel Production and Supply : LANTRA Certificate of Training Dec 2008.

Training in CAVAT amenity tree asset valuation October 2010.

Company Safety Policy:- We have been successfully assessed by Safety Management Advisory Services (SMAS) as meeting CDM Regs Core Criteria Stage 1, as a **Worksafe Consultant No. 31901**. Dated 07/07/2014 expiry 09/07/2015.

CITB Health, Safety & Environment Test for Managers & Professionals passed 22/01/2015.

First-aid at work June 2013.

Current clients and typical work include:-

English Heritage	Tree safety inspection contract 2007-2013 for East Midlands, East Anglia, London and SE England. Tree safety inspection contract for West of England & Midlands 2013-2019.
Planning Inspectorate (PINS) & Dept for Communities and Local Government.	Arboricultural Inspecting Officer in South-West England, South East England, West Midlands and East Midlands; advising the First Secretary of State on TPO appeals since 2000. Contract with DCLG expired April 2008 when transferred to PINS. Contract continues with PINS, as Non-Salaried Arboricultural Inspector, determining TPO appeals and High Hedge appeals.
Architects / Developers / Planning Appeals	Complete Arboricultural Impact Assessment & Tree Protection advice for planning, working with other professionals to input arboriculture into more complex development schemes. Recent assignments in Liverpool to Dorset, Kent, Norfolk & London. All using BS5837:2012. FULL CAD CAPABILITY.
Amey Mouchel Ltd	Overseeing Amey Tree Officer on motorway and trunkroad tree inspections throughout Midlands and Marches to 2012. Amey Mouchel are agents for Highways Agency.
Lafarge Tarmac Ltd, Midland Quarry Products & Quarryplan (in Northern Ireland).	Since 1990 working with Estates staff, quarry managers and Landscape / ecological consultancies organising and managing contracts for tree and woodland planting both pre- and post- quarrying. Also preparing landscape restoration schemes for straightforward sites plus landscape management on sites throughout southern England, East Anglia and south and south-west Wales. (Commendations for Land Restoration and Environmental improvements from Spelthorne Borough Council 2003.) Also in Northern Ireland ongoing tree consultancy for Quarryplan.
Bruton Knowles	Assisting BK clients with woodland management and other tree issues since 1984.
Tarmac Central now Lafarge Tarmac Ltd.	Since 1988 woodland management of Hopwas Hays Wood, Tamworth.
Rural estates in Herefordshire, Worcestershire and Gloucestershire, plus private woodland owners in southern England and Wales.	Since 1983 woodland management, tree management, hedgerow management. Many are Ancient woodlands and SSSI's requiring detailed ecological management plans produced in consultation with ecologists. About forty Farm Woodland Premium Schemes and about twenty Native Woodland Plans prepared to date in England and Wales. On-going EWGS grant applications. Input into Tir Gofal (and its successor) and Stewardship schemes. Better Woods for Wales (BWW) applications.
British Waterways	Ten-year Tree and Vegetation Management Plans along canals and around reservoirs in London, Hertfordshire, Berkshire, Birmingham, Staffordshire, Worcestershire, Gloucestershire, Shropshire, Llangollen Canal, etc: plus help in dispute with riparian owners. This work ceased around 2011.
Stroud District Council	Management of 49Ha woodland since 1989 on FC schemes plus grassland on DEFRA Stewardship Schemes, including HLS. Retired Nov07.
One-off clients	Since 1983 assisting tree owners, developers, lawyers etc throughout southern or midland Britain, including Wales, on a wide range of tree-related issues including planning, planning appeals, subsidence, health & safety, disputes, vegetation control, expert witness, valuation of woodlands, standing and felled timber, Christmas trees etc, and tree and landscape planting schemes. Recently High Hedge issues and BS5837 are hot topics.
Malvern Hills District Council. South Oxfordshire District Council	BJU Stand-in part-time Consultant Tree Officer Summer 2003. JF-D stand in Consultant Tree Officer summer 2009 to spring 2010.
Golf course & leisure facilities	Assistance with development of Carden Park golf course in Cheshire. Management advice for trees on other golf courses: Eg Ross Golf Club, Swindon Golf Club .
Farm management	Management of own 95Ha farmland since 1985.

Please do not hesitate to ask for further information. B J Unwin END.