

Arboricultural survey to British
Standard B.S. 5837: 2012 “Trees in
Relation to Construction – Recommendations”

At

**50 London Road
Cowplain
Hampshire
PO8 8EN**



Prepared by

N J Trowell

Revised

Date

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1. Introduction

- 1.1 I have worked in horticulture for over forty years. I started my career as an apprentice gardener with the Royal Parks Hampton Court. I worked at Portsmouth for nine years and Fareham for two in a supervisory capacity. I then moved to Southampton Council as a Parks Officer responsible for half the cities parks and open spaces. Whilst at Southampton I wrote the detailed Grounds Contracts that have been used by many other authorities. In April 2006, I took early retirement after fifteen years with Winchester City Council as their Parks and Recreation Officer. Responsible for all grounds contracts across the Winchester District. Since my retirement, I have started my own landscape design and consultancy business where I can draw on forty six years of experience in all areas of Horticulture.

2. The Brief

- 2.1 I have been instructed by Mr Lovett to carry out a Tree Survey; provide professional advice i.e. root protection areas in line with B.S. 5837:2012 and prepare an Arboriculture report to support a planning application for the land to the rear of 50 London Road Cowplain

3. Caveats

- 3.1 There is one Oak in the rear garden of 9 Padnell Road which is on the rear boundary of 50 London Road which has a Tree Preservation Order on it (TPO1932) placed there by Havant Borough Council.
- 3.2 The trees were surveyed from ground level, with binoculars being used where considered appropriate. Detailed inspection including aerial investigation (climbing the tree) decay mapping, root or soil analysis was not undertaken, and deemed not to be required on visual inspection of the trees.
- 3.3 Only the trees that form part of the proposed development site were surveyed and where it was thought to be necessary trees in neighbouring properties have had their Root Protection Areas estimated as it was not possible to gain access for more detailed measurements.

4. Survey Date

- 4.1 I originally surveyed the trees on the land at 50 London Road on 26 November 2010. I re- surveyed the site again on the 20 August 2012 the weather was warm and overcast with a slight breeze.

5. The Site

- 5.1 The proposed development site is in the rear garden of 50 London Road Cowplain. All the trees that are closest to the proposed develop site are in neighbouring gardens. To the east of the site is an Oak which is on the boundary and is covered by TPO1932 placed on it by Havant Borough Council. On the southern boundary is a Pine T4 which is 1.5 m from the boundary fence on the

neighbouring property. There is also a large Fir T5 in the front garden. These are the only trees that are of a reasonable quality that need full protection during development works. The house at present is serviced by a concrete drive which during building works will be the main access during construction works. Each tree I have given a number for ease of reference and shown on the attached plan Drawing No 0163-12

6. The Tree Survey

6.1 In carrying out the tree survey, the following was assessed for each tree in line with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations

Dimensions: height estimated to the nearest metre, crown spread, (measurements taken north/south/east/west), existing canopy height above ground level to first significant branch and stem diameter taken at 1.5m above ground level. Where measurements have been estimated due to access restrictions they are preceded with #

7. Species

7.1

TPO REF	TREE REF	Common Name	Scientific Name	NO OF TREES	LOCATION
T1932	T1	Oak	Quercus robur	1	Rear garden of 50 London Road eastern boundary
	T2	Ash	Fraxinus excelsior	1	Rear garden of 50 London Road eastern boundary
	T3	Beech	Fagus sylvatica	1	Rear garden of 50 London Road southern boundary
	T4	Fir	Pseudotsuga	1	Rear garden of 50 London Road southern boundary
	T5	Pine	Pinus sylvestris	1	Front garden of 50 London Road

8. Age

8.1 An estimate of the tree age is given where Y= young tree within first quarter of its life expectancy, SM = semi mature tree in its second quarter of its life expectancy EM = early mature tree within third quarter of its life expectancy. M = mature tree within final quarter of its life expectancy OM = over mature tree beyond life expectancy.

9. Condition

9.1 Tree condition summary is shown as: - Good, tree with no visible significant health defects. Fair, some visible remedial defects. Poor, serious visible structural defects or poor health.

10. Future Management Recommendations

10.1 Work required to trees for reasons of sound arboricultural management. This provides management recommendations for trees in their current context and may include the further investigation of suspected defects.

11. Retention span

11.1 Estimated remaining contribution based on species, condition and species, condition and context. The following longevity bands are used: <10; 10+ 20+ and 40+

12. Tree categorization method

12.1 Quality and value classification where;-

- Category U= Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than ten years and should be removed for reasons of sound arboricultural management. Trees in this category are shown in dark red on the tree survey plan
- Category A= Trees of high quality and value and in such condition that they are likely to make a useful contribution for 40 years or more. Trees in this category are shown in light green on the tree survey plan
- B= Trees of moderate quality and value and in such a condition that they are likely to make a useful contribution for at least 20 years. Trees in this category are shown in mid blue on the tree survey plan
- C= Trees of low quality and value or of no particular merit and in such a condition that they are likely to make a useful contribution for 10 years or young trees diameter below 150mm. Trees in this category are shown in grey on the tree survey plan

12.2 Trees in the A B and C categories are also assessed under three headings (1) Mainly arboricultural qualities (2) Mainly landscape qualities (3) Mainly cultural values including conservation. Further detail on these categories can be found on page 9 Table 1 of BS 5837:2012.

Tree No	Species	Height m	Dia at 1.5m (cm)	Crown Spread (m)	Crown Clearance (m)	Dia of RPA (m)	RPA (M sq)	Age Class	Comments Structural and physiological condition	Preliminary Management considerations	Estimated remaining contribution (Years)	Category rating
T1	Oak	16	50	N 5 #E 6 W 4 S 6	6 W	6.0	113	EM	Good physiological condition Good structural condition Good no visible significant health defects.	Growing on rear eastern boundary with 9 Padnell Road	40+	A
T2	Ash	9	25	N 3 #E 4 W 4 S 4	4 W	3.0	28	SM	Poor physiological condition Poor structural condition Covered in ivy into crown	Growing on boundary	<10	C
T3	Beech	#10	25	#N 5 #E 5 #W 5 #S 5	4 N	3.0	28	SM	Fair physiological condition Fair structural condition	Growing in neighbouring garden southern boundary	20+	B
T4	Fir	17	#35	#N 3 #E 2 #W 3 #S 2	10 E	4.20	55	M	Poor physiological condition Poor structural condition Fair no visible significant health defects.	Growing in neighbouring garden southern boundary	20+	C

Tree No	Species	Height m	Dia at 1.5m (cm)	Crown Spread (m)	Crown Clearance (m)	Dia of RPA (m)	RPA (M sq)	Age Class	Comments Structural and physiological condition	Preliminary Management considerations	Estimated remaining contribution (Years)	Category rating
T5	Pine	16	50	N 4 E 3 W 3 S 3	7 E	6.0	113	M	Fair physiological condition Fair structural condition Poor shape .	Remove dead branches	20+	B
H1	Conifer Hedge	9	#20	N - E - W - S 5	-	2.40	183	EM	Fair physiological condition Fair structural condition	Cut back to 2m and reduce in height to restore hedge	10+	B

13. Observations

- 13.1 The Oak T1 (TPO 1932) is the only tree with a tree preservation order on it. The tree stands on the boundary between 50 London Road and 9 Padnell Road but is in the ownership of No 9. The tree is in good condition and has some lower limbs removed in the past and these have calloused over.



- 13.2 The Ash T2 is also on the same boundary as that of T1 and is again in the neighbouring garden. It is in poor condition covered in Ivy into the crown and has had the top removed at some point.



- 13.3 The Pine T3 is on the southern boundary and approximately 1.5m away from the fence in the neighbouring property. This tree again is in poor condition.



- 13.4 The Pine T4 is in the front garden and will not be affected by this proposed development. Although the roots are close to the drive and parking area they are protected by the concrete drive and parking area to the front of the existing house and I believe not to require any further protection during construction work.

- 13.5 The Cupressus hedge H1 have been topped at approximately 9m but has not had the side growth cut back and therefore has become overgrown and the hedge requires reshaping by cutting back by about 2m the side growth and allowed to re-grow and then cut again to re-establish as a formal hedge.



- 13.5 Where work on the tree is required, a competent arboricultural contractor should be used; Works should be carried out in accordance with B.S. 3998 "Recommendations for Tree Work" 2010

14. Appraisal

14.1 The tree survey has revealed that there would be no encroachment into the Tree Protection Areas of T1 T2 and T3.

14.2 During construction work these trees will be protected by a fence in line with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. On completion of building works the fence would be removed.

15. Conclusions

15.1 It is concluded that it is practical and economically possible to construct the proposed new bungalows without adversely affecting the trees in question.

15.2 The calculation of the root protection areas is recommended by BS5837:2012 Trees in relation to design, demolition and construction – Recommendations gives the appropriate distance for protective fencing from the trees. I have indicated this on the attached site plan to this report Drawing No 0163-12

Appendix 1

Method Statement

1.0 Introduction

- 1.1 This Method Statement has been prepared by Nigel Trowell on behalf of Mr Lovett and should be read in conjunction with the Arboricultural Survey above.
- 1.2 The Method Statement recommends that the planned development on this site is carried out in accordance with British Standards BS5837:2012 Trees in relation to design, demolition and construction – Recommendations
- 1.3 The developer must agree to undertake tree protection to the standard advised in this Method Statement. Every contractor on site must receive a copy of the statement and abide by its contents.

2.0 General Protection to existing trees and hedges

- 2.1 To avoid the tree roots being damaged during construction, the recommendations in British Standards BS5837:2012 Trees in relation to design, demolition and construction – Recommendations must be complied with at all times. Prior to the works commencing, protection measures will be put in place and maintained for the duration of the construction works.
- 2.2 Protective fencing in the way of Heris fencing will be erected around the trees in line with the British Standards BS5837:2012 Trees in relation to design, demolition and construction – Recommendations and will be erected as per the calculated distance shown on the attached plan 0163-12
- 2.3 The protected area will remain out of bounds until the fencing is removed at the end of the development period.
- 2.4 Particular care should be taken when working around the Tree Protected Area to avoid unnecessary damage to any roots. But where roots larger than 15cm are found they should be cut cleanly. Exposed roots shall be covered at the end of the working day.
- 2.5 No wires nails or other materials may be attached to protected trees.
- 2.6 No diesel oil, bitumen, cement or other material potentially injurious to the trees will be stacked or discharged where it could leach into the rooting zones.
- 2.7 No equipment, vehicles shall be operated, stored or parked within the root protection zone. No clean out areas will be constructed so that the material will be in or migrate to the root protection zone.
- 2.8 Roots or branches in conflict with construction work will be cut cleanly according to proper pruning methods. Any such work will be carried out in accordance with B.S.3998:2010 "Recommendations for Tree Work"

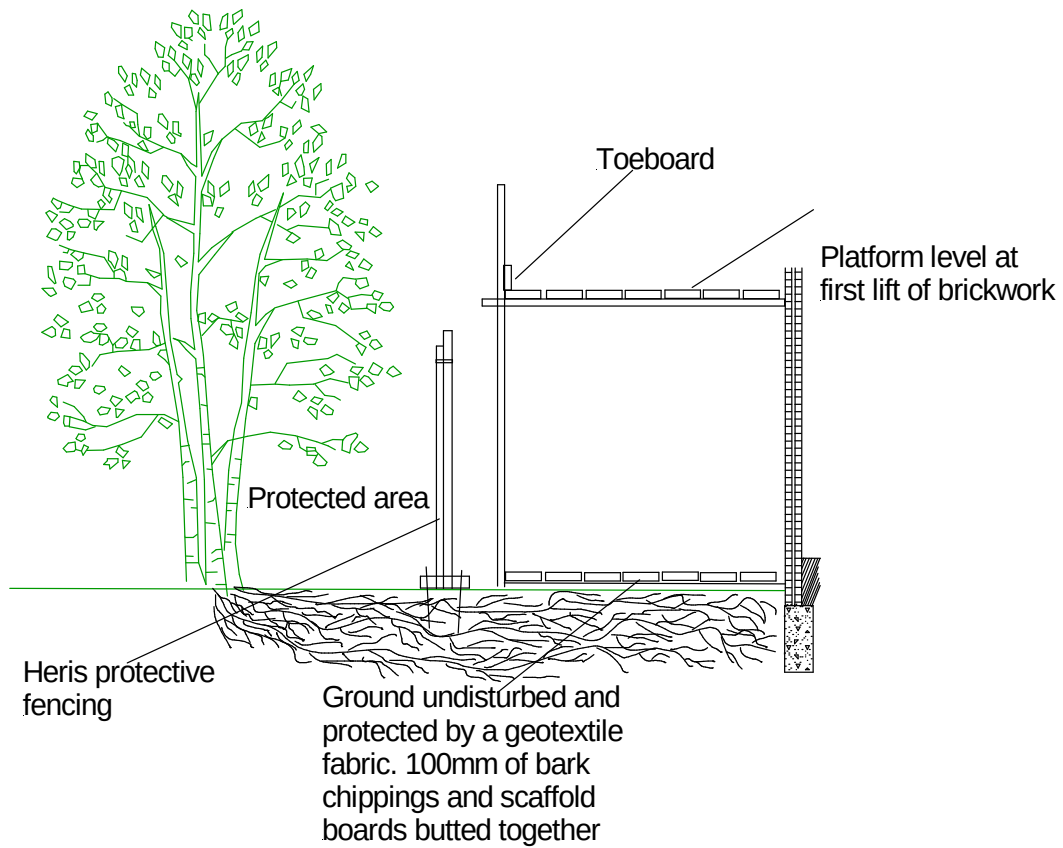
- 2.9 Levels around the existing trees and hedges will not be raised or reduced unless in compliance with the specification for trenching works and within line. BS5837:2012 Trees in relation to design, demolition and construction – Recommendations
- 2.10 Scaffolding may only be erected within protected areas if it is done in accordance with British Standards BS5837:2012 Trees in relation to design, demolition and construction – Recommendations and with the consent of the Tree officer of the Local Council.

3.0 Method Statement for 50 London Road

- 3.1 Prior to the commencement of any works on site a meeting will be held with the building supervisor, tree surgeon and the Tree Officer for Havant Borough to discuss all the details of the tree protection measures as specified and any other site operations that have implications for trees. It is the responsibility of the site foreman to inform all employees, contractors and sub-contractors visiting and or working on the site of the details specified and to raise the importance of the tree protection measures so as to avoid causing damage to retained trees.
- 3.2 Prior to the commencement of any building associated works i.e. the bringing onto site of equipment and materials etc the hedges that are to be retained will be cut back as agreed at the site meeting. All hedge pruning shall be carried out as the first operation on site, in accordance with BS3998:2010 Recommendations for Tree Work and current Best Practice.
- 3.3 On completion of associated tree and hedge works protective fencing in the way of Heris fencing will be erected around the trees and hedges in line with the British Standards BS5837:2012 Trees in relation to design, demolition and construction – Recommendations and will be erected as per the calculated distance shown on the attached plan. On the northern line of fencing and by the propose new bungalow as shown on the attached plan this area will further be protected with the laying down of a geotextile membrane and covered to a depth of 100mm of bark chippings and on top of this will be placed scaffold boards or plywood sheets this will be necessary to avoid compaction in this area and protect the roots from the scaffolding which will need to be constructed in these areas. The trees in the front garden will be protected as per the plan and all protection conditions will apply to these trees as agreed with Havant Borough Councils Tree Officer. The area to be protected in this way is shown on the attached plan.
- 3.4 Following approval of the tree protection measures the site team can commence with the development related activities.
- 3.5 The Tree Protection Barriers and Ground Protection shall not be removed, breached or altered without prior written authorization from the local planning authority but shall remain in a functional condition throughout the entire development, until all development related machinery and materials have been removed from site. If such protection measures are damaged beyond effective functioning then works that may compromise the protection of trees shall cease until the protection can be repaired or replaced with a specification that shall provide a similar degree of protection. Any issues regarding tree protection should be agreed and implemented prior to commencement of development.

- 3.6 The tree protection measures shall not be dismantled until all construction related machinery and materials have been removed from site and not without authorization from the Havant Borough Councils Tree Officer. Once authorization has been given the protection measures can be removed by hand and transported off site. During which time, no machinery or vehicles shall enter the area previously protected. No excavations, storage of materials, soil stripping, the raising or lowering of levels or the laying of hard surfacing without prior approval

Appendix 2



Scaffolding within the RPA as shown in BS5837:2012