

Broad Oak Tree Consultants Limited
Laurel House, Burwash Road, Broad Oak, Heathfield, East Sussex
TN21 8SS Tel: 01435 862444 broadoaktrees@btconnect.com



REPORT ON INSPECTION OF TREES

OF

**FLINTS/BONHAMS
HOE LANE
FLANSHAM
BOGNOR REGIS
PO22 8NP**

BY

**Tim Laddiman
BSc.(Hons) M.I.C.For. M.Arbor.A.
Chartered Arboriculturist**

**Our ref: J53.95
15th May 2017**

CONTENTS

Page No.

1.	INTRODUCTION	1
2.	GENERAL SITE DESCRIPTION	1
3.	SCOPE OF TREE SURVEY	1
4.	DATA COLLECTION	1
5.	RISK ASSESSMENT	2
6.	RESULTS OF TREE INSPECTIONS	3
7.	TREE SAFETY WORKS	4
8.	BS CALCULATED ROOT PROTECTION AREAS (RPAs)	4
9.	SUMMARY	5
10.	INFORMATIVES	5

APPENDICES:

1. EXPLANATORY SHEETS, TREE INSPECTION SHEETS
2. TREE CONSTRAINTS PLAN, DRAWING NO. J53.95/01 Rev. A
3. TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAs)

1. INTRODUCTION

- 1.1 Broad Oak Tree Consultants Ltd. received instructions from Pallant Homes Ltd. to undertake an inspection of trees located at Flints/Bonhams, Hoe Lane, Flansham, Bognor Regis, PO22 8NP. The purpose of the inspection was to produce a base inventory of the tree stock, advise on any safety issues, calculate BS root protection areas and produce a Tree Constraints Plan that can be used for advising potential redevelopment layouts.
- 1.2 The trees were inspected on 19th April 2017 by Tim Laddiman, BSc.(Hons) M.I.C.For. M.Arbor.A., Chartered Arboriculturist and Principal Consultant of Broad Oak Tree Consultants Ltd.
- 1.3 At the time of reporting it is not known whether any trees on the site are covered by statutory protection such as Tree Preservation Orders or Conservation Area regulations. Before any tree works recommended in this report are undertaken, checks should be made with the local Council. Checks with the local Council have not been undertaken unless specifically requested as such enquiries can result in Tree Preservation Orders being placed where none previously existed.

2. GENERAL SITE DESCRIPTION

- 2.1 The site is triangular in shape and located on the south side of Hoe Lane with the A259 to the east beyond a swale and landscape bund. To the north-west is a residential property with fields to the south-west and a public footpath running parallel with the boundary.
- 2.2 The northern half of the site is occupied by two residential properties and their grounds. Flints is a smaller property occupying a rectangular plot to the south with an access around the grounds to Bonhams. Bonhams is a large flint and brick two storey residence built in 1727 with landscaped grounds and gravel drive leading to a shared drive onto Hoe Lane to the north-east. South of the properties is a recently mowed neglected field with dilapidated corrugated iron stables to the west.
- 2.3 Overall the site is relatively level with belts of maturing trees along the frontage with Hoe Lane and along the western boundary, with mixed age extensive planting within the grounds of Bonhams.

3. SCOPE OF TREE SURVEY

- 3.1 All trees and shrubs of 75mm diameter or more at 1.5m above ground level were included in the survey. This included trees immediately adjacent to the site.
- 3.2 For the offsite trees estimates of location, dimensions and condition had to be made.

4. DATA COLLECTION

- 4.1 All trees were inspected from the ground and no climbing or specialist investigations were undertaken. Only those trees within the site boundary could be basally inspected, with the structural integrity of the trees located outside the site unconfirmed. Each tree was inspected to the requirements of Section 4.4 of BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations".

- 4.2 The tree survey followed the numbered sequence from T1 – T70 inclusive. Tree numbers, together with BS recommended colour coding of condition, have been added to the Tree Constraints Plan, our drawing no. J53.95/01 Rev. A in Appendix 2. This drawing also includes crown spreads based on four compass points and BS calculated root protection areas.
- 4.3 The following categories of information were obtained for each tree. Separate detailed tree survey sheets are attached in Appendix 1, together with comprehensive explanatory sheets which cover the details of the categories listed below.

- (1) Tree reference number
- (2) Species
- (3) Height in metres
- (4) Stem count
- (5) Stem diameter or equivalent in millimetres
- (6) Branch spread in metres
- (7) Age class
- (8) Height of crown clearance in metres
- (9) Physiological condition
- (10) Estimated remaining contribution in years
- (11) Category grading
- (12) Structural condition
- (13) Preliminary management recommendations

- 4.4 Within the assessment of physiological condition and remaining contribution, a visual inspection of each tree was undertaken to assess the crown and stem for any weak structures, deadwood, hollows, forks or other defects that might affect its stability and safety. The base of each tree was also visually inspected, together with tapping and probing, to search for signs of root lifting, bark death or decay. Where stems were heavily ivy clad, no full assessment of structural integrity could be undertaken. Clearance of the ivy would be necessary for confirmation of tree condition.

5. RISK ASSESSMENT

- 5.1 Although the potential risk to someone passing beneath a tree when the tree or part of it fails is relatively remote, the risk is present. This increases significantly in areas of consistent and regular usage on a year round basis, such as footpaths, gardens and roadways. Where static structures exist, the risks become constant and an assessment is made as to whether complete or partial failure of a tree could potentially cause physical damage to such structures.
- 5.2 Within the scope of any tree survey it is a fact that not all risks of stem or crown failure can be covered, particularly in relation to freak occurrences of weather when even healthy trees can suffer stem snap or windblow. There is also a well known propensity for mature trees to occasionally shed limbs for no discernible reason, even on calm days. Although relatively rare, limbs may occasionally be shed and this should be acknowledged as a risk that cannot entirely be mitigated.

6. RESULTS OF TREE INSPECTIONS

- 6.1 A total of 70 individual trees and groups were inspected, ranging from young Cypress and Maples of less than 15 years of age to mature Beech and Hornbeam of circa 100 years of age. The older trees form an arcing line around the southern and eastern grounds of Bonhams with extensive secondary planting. Numerous Cypress have been planted and heavily clipped with many over pruned leaving bare areas that won't refoliate.
- 6.2 Along the western boundary are overgrown, what appear to be offsite trees, mainly Sycamore, with many appearing to be in a poor condition. The owners of the trees should be requested to confirm their condition and address any safety works.
- 6.3 Certain trees were noted to be in a poor/potentially dangerous condition within the grounds of Bonhams and would be recommended for safety works whether or not redevelopment of the site occurs. With many trees at bud burst it was not possible to completely assess canopy health at the time of inspection. As a consequence certain trees have been given the benefit of the doubt in terms of condition, particularly the Robinia, tree T57.
- 6.4 The tree works recommended at present to address safety issues to current users of the site are listed in the following section.
- 6.5 Of the trees inspected, the following is a breakdown of the various numbers of trees and groups in each BS category.

BS Category	Tree No.	Sub Total
A	-	-
B	1, 4, G9, G21, 29, 31, 34, 35, 36, 39, 42, 47, 55, 56, 64, 66, 67, G69, 70	19
B/C	G16	1
C	2, 3, 5, 6, 7, 8, G10, G15, 17, G18, 19, 20, G22, 23, G26, 27, 28, 30, 32, 33, 37, G40, 43, 44, G45, 46, 48, 49, 50, 51, 52, 53, 54, 57, G58, 59, 60, 61, G62, 63, 65, 68	42
C/U	G14	1
U	11, 12, G13, 24, 25, 38, 41	7
	TOTAL	70

6.6 Interpretation of table

- Category A** Retention most desirable. Of high quality and value and in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).
- Category B** Retention desirable. Of moderate quality and value and in such a condition as to make a significant contribution (a minimum of 20 years is suggested).
- Category B/C** Groups of trees that include individuals of varying qualities that fall into the category B and C classifications or where individuals may be of Category C quality but as a whole they have a higher value.

- Category C** Could be retained – of low quality and value. Poor crown form, heavily asymmetric, large numbers of similar species/size. Currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested) or young trees with a stem diameter below 150mm.
- Category C/U** Trees that would be included in category C but have structural faults, areas of decay, etc. that require more detailed investigations or climbing inspections to ascertain whether or not they can be safely retained. Groups that include dead/dying/dangerous individuals.
- Category U** Trees for removal. Dead/dying/dangerous trees due to structural defects, fungal decay or root plate uplift. Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

7. TREE SAFETY WORKS

- 7.1 The tree inspections have identified the following trees as being in a potentially dangerous condition or having a very limited remaining safe lifespan. Removal/surgery is recommended even in the absence of redevelopment proposals.

Tree No.	Species	Recommended Safety Works
T12	Sycamore	Owner to confirm condition and action.
G13	4no. Sycamore	Owner to confirm condition and action.
G14	2no. Sycamore	Owner to confirm condition and action.
T24	Poplar	Fell.
T70	Weeping Willow	Repollard.

- 7.2 Other trees have been classified as BS category U but are not considered a high risk to people/property in the short term.

8. BS CALCULATED ROOT PROTECTION AREAS (RPAs)

- 8.1 To provide an indication of the critical areas of root plate necessary for tree survival and longevity, BS 5837:2012 requires the calculation of RPAs for trees in the BS Categories A, B and C. Calculations are not made for Category U trees which will require removal on safety grounds within 10 years.
- 8.2 The table attached in Appendix 3 has been calculated using the measured stem diameters and the formula as described in Section 4.6 in BS 5837:2012. These are represented as basic circles on the Tree Constraints Plan. Where buildings, walls, services and hard surfacing exist within the indicated RPAs it is likely that the architecture of root systems will have been affected. Foundations to walls and buildings can completely obstruct root development, depending on their depth and the nature of the underlying soils. In the absence of detailed site investigations the indicated RPA circles should be used for guidance only within any redevelopment proposals.

9. SUMMARY

- 9.1 A total of 70 individual trees and groups were inspected, ranging from under 15 years to circa 100 years of age with most representing various phases of landscape planting within the grounds of Bonhams. Tree size, species and health varies considerably and there are concerns regarding numerous offsite Sycamores along the western boundary. Three trees and two groups have been recommended for safety works within and adjoining the grounds of Bonhams.
- 9.2 The Tree Constraints Plan produced provides guidance on the potential influence above and below ground elements of trees could have on any redevelopment proposals. Account should also be taken of future growth potential and shading by the trees.

10. INFORMATIVES

- 10.1 Instructing a firm to perform tree work or felling should only be carried out once it has been established that the tree is not covered by a Tree Preservation Order or stands within a Conservation Area. In either case it would be necessary to obtain local authority consent if the tree is covered. Heavy fines are imposed for transgression of TPOs.
- 10.2 Any tree work should be carried out by a competent tree surgeon to comply with BS3998:2010 "Tree Work - Recommendations".
- 10.3 All trees recommended for felling or tree surgery works should be checked for the presence of bats or nesting birds prior to works commencing. Disturbance to bats or nesting birds could contravene the Wildlife and Countryside Act 1981 and result in prosecution.

Tim Laddiman
Chartered Arboriculturist
Broad Oak Tree Consultants Ltd.

APPENDIX 1

TREE SURVEY EXPLANATORY SHEET

Height	in metres (estimated where ground uneven or access restricted).
Stem count	number of stems
Stem diameter	in mm. at 1.5m. above ground level.
Branch spread	radial spread in metres at four main compass points (estimated where no access).
Age class	Young - Y Middle aged - MA Mature - M Over mature - OM Veteran - V
Height of crown clearance	in metres. Normally range of heights of outer branches above ground level, e.g. 2-4m.
Physiological condition	Good, Fair, Poor, Dead, Variable
Estimated remaining contribution	in years e.g. less than 10, 10-20, 20-40, 40+
Category grading	see attached sheet
Structural condition	comment on presence of defects, decay, crown form, past management, deadwood, other features worthy of note. N.B. If trees are ivy clad, no full structural assessment will have been possible.
Preliminary management recommendations	requirements of further investigations, works necessary to alleviate potential hazards based on current setting and levels of access. NB: Works that may be necessary in relation to development are not included here

CASCADE CHART FOR TREE QUALITY ASSESSMENT

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	- 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 R category 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 (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree.)			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria - Subcategories			Identification on plan
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial construction (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodland, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm.	Trees not qualifying in higher categories	Trees present in groups or woodland, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits	GREY
NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation				

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
1	Sycamore	14	1	c600	6	4.5	6	4	MA	2+	Unconfirmed	20-40	B2	Twin stemmed at 1.9m. Ivy clad therefore no basal inspection.	
2	Sycamore	9	2	c300	4.5	2	3.5	3	MA	2+	Unconfirmed	20-40	C2	Crowded. Twin stemmed at 1m. Ivy clad therefore no basal inspection.	
3	Sycamore	12	1	c300	5.5	2	3	2	MA	2.6+	Unconfirmed	20-40	C2	Ivy clad therefore no basal inspection. Crowded.	
4	Box Elder	9	1	c350	8	2.5	5	4.5	MA	1.5+	Unconfirmed	20-40	B2	Multi stemmed at 2.2m. Ivy clad therefore no basal inspection.	
5	Norway Maple	10	1	350	5	2.5	3	3.5	Y	2+	Good	40+	C2	Crowded.	
6	Cypress	3	1	190	1.5	1.5	1	1.5	Y	0.7+	Fair	20-40	C2	Clipped. Overtopped.	
7	Cockspur Thorn	6	1	320	4.5	3.5	3	2.5	M	1.8+	Fair	20-40	C2	Multi stemmed at 1.8m. Slight lean to E. Minor dieback.	
8	Cypress	3	1	c220	1.5	2	2	1.5	Y	0.5+	Fair	20-40+	C2	Clipped shape. Topped.	
G9	Field Maple, Willow	<12	1/Multi	<450	<4	<5.5	<4	<5	MA	0+	Variable	20-40+	B2	Crowded belt. Variable height.	
G10	Hawthorn, Elder	<7	Multi	<300	<3	<5	<3	<5	M	0+	Variable	10-40	C2	Overgrown hedgerow.	
11	Elder	6	Multi	c250	5	5	0	1	-	0+	Dead	-	U	Dead. One stem collapsed to E.	
12	Sycamore	9	1	c400	3	4	2	3	MA	3+	Poor	<10	U	No access therefore no basal inspection. Ivy clad. Twin stemmed from under 2m. Dieback.	Owner to confirm condition and action.
G13	4no. Sycamore	<15	1	<400	<5	<8	<6	<5	M	3+	Poor	<10	U	No access therefore no basal inspection. Crown dieback and deadwood.	Owner to confirm condition and action.

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G14	2no. Sycamore	<16	1/2	<600	<7	<7	<4	<6	M	2+	Poor	<10-20	C/U1	Ivy clad. Crowded forming one crown. Fine dieback and deadwood. N. tree twin stemmed near ground level. Old fungal fruiting bodies on N. stem. Presumed in adjoining land ownership.	Owner to confirm condition and action.
G15	2no. Crack Willow	<15	2	<450	<5	<6.5	<2	<6	M	0+	Unconfirmed	10-20	C1	Crowded. Leaning NE and W. Ivy clad therefore no basal inspection. Ownership unclear.	
G16	Sycamore, Ash	<18	1	<550	<6	<8	<6	<8	M/MA	1+	Unconfirmed	10-40+	B/C1	Crowded row on adjoining land therefore no basal inspection. Variable size.	
17	Sycamore	7	1	c150	3.5	3	3.5	4	Y	<1	Unconfirmed	40+	C2	Located in adjoining garden.	
G18	Rhus sp.	<4	Multi	<100	<1	<1	<2	<2	Y	0+	Unconfirmed	20-40	C2	Crowded belt. Located in adjoining garden therefore no basal inspection.	
19	Hornbeam	8	1	c170	3	2	3	c3	Y	1+	Unconfirmed	40+	C2	Twin stemmed at 2m. Located in adjoining garden therefore no basal inspection.	
20	Privet	<5	Multi	<100	<2	<1.5	<2	<2	M	0+	Unconfirmed	40+	C2	Overgrown hedge in adjoining garden. Clipped up fence side.	
G21	Hornbeam, Sycamore	<18	Multi	<500	<5	<5	<5	<5	Y-M	2+	Unconfirmed	20-40	B2	Belt of trees in adjoining land.	
G22	3no. Hybrid Black Poplar	<16	1	<400	<3	<3.5	<3	<3	MA	2.5+	Unconfirmed	20-40+	C2	Ivy clad therefore no basal inspection.	
23	Magnolia	4	Multi	260	4	4.5	4	3.5	MA	1+	Good	20-40	C2	Multi stemmed near ground level.	
24	Poplar	9	1	c800	1	1	1.5	1	-	3+	Dead	-	U	Dead. Heavily decayed base. Pollarded in past at circa 4m.	Fell.

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
25	Pissard Plum	6	1	c400	3	3	3	3	M	1.5+	Poor	<10	U	Heavily ivy clad therefore no basal inspection.	
G26	Cypress	<6	Multi	<230	1.5	1.5	1.5	2	Y	0+	Fair	20-40	C2	Clipped. Overtopped.	
27	Hybrid Black Poplar	16	1	360	3	2.5	3	4	Y	2.5+	Good	40+	C2	Pollarded at circa 4m in past.	
28	Cypress	3	1	180	1.5	1.5	1.5	1.5	Y	0+	Poor	10-20	C1	Overtopped. Limited live foliage.	
29	Hornbeam	17	2	700	8	5.5	5.5	7.5	M	1.2+	Fair	20-40	B2	Twin stemmed at 1m.	
30	Ornamental Cherry	3	Multi	170	3	5	3	2.5	Y	1+	Fair	10-20	C2	Multi stemmed at 1.4m. Deadwood. Overtopped.	
31	Hornbeam	16	2	940	9	7	7	7	M	2+	Fair	20-40	B2	Twin stemmed at 1.1m. Potentially weak union. Three stems at 2.5m.	
32	Fruit	6	1	320	3	2.5	0	1.5	M	2+	Fair	10-20	C2	Crowded. Heavily reduced in past.	
33	Fruit	5	1	260	5	3	1	3	M	2+	Fair	10-20	C2	Crowded. Heavily reduced in past.	
34	Hornbeam	15	1	520	7	2.5	6	6.5	M	2+	Good	20-40	B2	Crowded.	
35	Hornbeam	17	1	770	9	6.5	7	3	M	2.2+	Fair	20-40	B2	Multi stemmed from under 4m. Lean to NE.	
36	Beech	22	1	670	7	4.5	3.5	3.5	M	5+	Fair	20-40	B2	Twin stemmed at 4m with potentially weak union.	
37	Cypress	3.5	1	130	2	1.5	1.5	1.5	Y	0.5+	Fair	20-40	C2	Clipped shape.	
38	Fruit	3.5	1	210	2.5	1.5	0.5	1	M	1.8+	Poor	<10	U	Decayed base. Dieback. Twin stemmed at 1.6m.	
39	Beech	21	1	810	7	6	5	2.5	M	6+	Fair	20-40	B2	Twin stemmed at circa 4m. Ivy clad at join therefore condition unclear. Rising crown.	
G40	Cypress	<3	1	<150	<1.5	<1.5	<1.5	<1.5	Y	0+	Fair	20-40	C2	Clipped shape.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
41	Whitebeam	15	1	330	3.5	4.5	1	2	MA	3+	Poor	<10	U	Slight lean to N. Crowded. Three stems from under 3.5m. Rising crown. Woodpecker holes in main stem at 4.5m.	
42	Hornbeam	16	Multi	630	4	4.5	5.5	5	M	3+	Unconfirmed	20-40	B2	Three stems from under 1.2m. Ivy clad therefore no basal inspection.	
43	Whitebeam	14	1	340	4.5	4.5	4.5	2.5	MA	1.7+	Fair	20-40	C2	Twin stemmed at 2m. Crowded.	
44	Hawthorn	6	1	c160	3	2	3.5	2	Y	1.8+	Fair	20-40	C2	Ivy clad therefore no basal inspection.	
G45	Cypress	<3	1	<170	<2	<1.5	<1.5	<2	Y	0+	Fair	20-40	C2	Clipped. Overtopped.	
46	Red Oak	16	1	c650	5	8	7.5	6	MA	4+	Fair	20-40	C2	Ivy clad lower stem. Leaning E. Crowded to NE. Minor deadwood.	
47	Beech	20	1	710	9.5	9	2.5	8	M	2.1+	Fair	20-40	B2	Crowded to S. Multi stemmed at 6m where topped in past. Decay of central stub. Ascending crown.	
48	Norway Maple	18	1	520	2	4	2.5	3.5	M	5+	Poor	10-20	C1	Pollarded at 4.5m in past with pooled decay. Crowded.	
49	Pissard Plum	8	Multi	260	2.5	3.5	4.5	2	MA	1.4+	Poor	10-20	C1	Crowded. Three stems from under 1.2m. Weak unions. Dieback.	
50	Box Elder	10	1	320	5	6	2	0	MA	2+	Poor	10-20	C2	Leaning E. Crowded. Basal wounding.	
51	Cypress	2.5	1	130	1	1.5	1	0.5	Y	1+	Poor	10-20	C1	Over pruned. Overtopped.	
52	Cypress	4	1	200	1.5	2	1.5	1.5	Y	0+	Poor	10-20	C1	Topped. Clipped. Overcut in areas.	
53	Cypress	3	1	200	1.5	2	2	1.5	Y	0.5+	Fair	20-40	C2	Topped. Clipped.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
54	Norway Maple	6	1	210	2.5	4	2.5	1	Y	2+	Fair	10-20	C2	Twin stemmed at 1.7m. Bark cracking.	
55	Beech	20	1	c760	7.5	7	6.5	7.5	M	3+	Good	20-40	B2	Part ivy clad.	
56	Beech	21	1	760	7	4.5	6.5	6	M	3+	Fair	20-40	B2	Twin stemmed at 3m. Potentially weak union. Topped in past at circa 7m-8m with decay of stubs.	
57	Robinia	17	1	370	3	4.5	4	4	MA	4+	Poor	10-20	C1	Twin stemmed at 1.8m. Fine dieback.	
G58	Pittisporum, Holly, Cypress	<9	Multi	<300	<3	<3	<5	<3	Y-M	0+	Variable	20-40	C2		
59	Maple	12	1	c300	2.5	4	4	4	Y	3+	Unconfirmed	20-40	C2	Heavily ivy clad.	
60	Maple	10	1	c250	2.5	4	4	2.5	Y	2+	Unconfirmed	20-40	C2	Heavily ivy clad. Reduced all over at circa 3m in past.	
61	Common Oak	11	1	190	2	1.5	2	5	Y	2+	Fair	40+	C2	Heavily crowded.	
G62	Elm, Sycamore	<18	1/Multi	<250	<3	<7	<3	<2	Y	1+	Unconfirmed	10-40	C2	Heavily crowded. Drawn up crowns. Leaning N. and E.	
63	Hornbeam	16	1	490	7	5.5	5.5	3.5	M	1.3+	Fair	20-40	C2	Slight lean to E. Crowded to W.	
64	Beech	22	1	860	9	9	5.5	5.5	M	3.5+	Fair	20-40	B2	Woodpecker hole in stem at 5m to S.	
65	Ornamental Cherry	7	Multi	c250	7	1.5	0	5	MA	1.2+	Fair	10-20	C2	Crowded. Leaning N. Long limbs to N. and W. Three stems at 1.4m.	
66	Sycamore	18	1	c550	6	9	3	5	M	2+	Fair	20-40	B2	Part ivy clad.	
67	Hybrid Black Poplar	17	1	c350	3	4	2.5	3.5	MA	2+	Unconfirmed	20-40	B2	Multi stemmed at 3m. Ivy clad. No access therefore no basal inspection.	
68	Cypress	4	Multi	150	1.5	1.5	1.5	1.5	Y	0+	Fair	20-40	C2	Over clipped.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G69	Hybrid Black Poplar	<17	1	<350	<4	<5	<4	<4.5	MA	1.3+	Unconfirmed	20-40	B2	Row of similar trees. Ivy clad therefore no basal inspection as no access.	
70	Weeping Willow	14	1	790	5.5	8	9	4.5	M	2+	Fair	20-40	B2	Lean to E. Kinked stem to SE at 4m. Large tear wound in second stem to S. at 6m. Pollarded in past.	Repollard.

APPENDIX 2

1

BS Condition A

T1

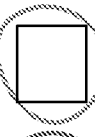
BS Condition B

2

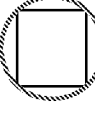
BS Condition C

T11

BS Condition U

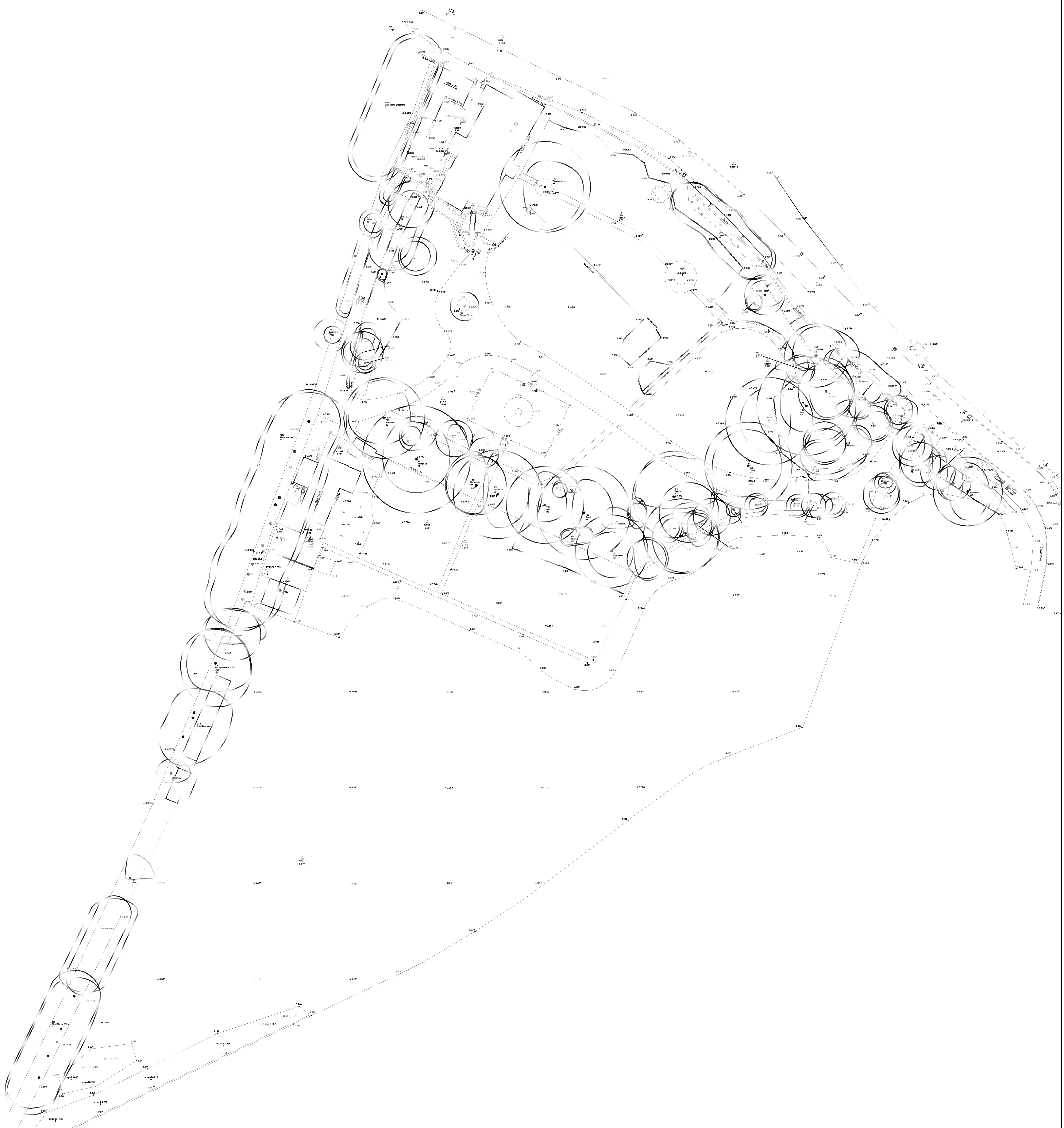


Paced crown spread



BS Calculated root protection areas

The root protection areas have been calculated using the measured stem diameters and the formulae as described in Section 4.8 of BS5823:2012. These are represented on basic circles on the Tree Constraints Plan. Where buildings, walls, services and hard surfacing exist within the indicated RPA, it is likely that the crowning of root systems will have been effected. Foundations to walls and buildings can completely obstruct root development, depending on their depth and the nature of the underlying soils. In the absence of detailed site investigations, the indicated RPA circles should be used for guidance only within any redevelopment proposals.



APPENDIX 3

TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAs)
AT

FLINTS/BONHAMS, HOE LANE, FLANSHAM, BOGNOR REGIS, PO22 8NP

Tree no.	Species	BS Category	Stem diameter or calculated equivalent (mm.)	BS calc. radial equiv. root protection area (m.)	BS calc. total RPA (m²)
1	Sycamore	B2	c.600	c.7.2	c.163
2	Sycamore	C2	c.300	c.3.6	c.41
3	Sycamore	C2	c.300	c.3.6	c.41
4	Box Elder	B2	c.350	c.4.2	c.55
5	Norway Maple	C2	350	4.2	55
6	Cypress	C2	190	2.3	17
7	Cockspur Thorn	C2	320	3.8	45
8	Cypress	C2	c.220	c.2.6	c.21
G9	Field Maple, Willow	B2	<450	<5.4	<92
G10	Hawthorn, Elder	C2	<300	<3.6	<41
11	Elder	U	-	-	-
12	Sycamore	U	-	-	-
G13	4no. Sycamore	U	-	-	-
G14	2no. Sycamore	C/U1	<600	<7.2	<163
G15	2no. Crack Willow	C1	<450	<5.4	<92
G16	Sycamore, Ash	B/C1	<550	<6.6	<137
17	Sycamore	C2	c.150	c.1.8	c.10
G18	Rhus sp.	C2	<100	<1.2	<5
19	Hornbeam	C2	c.170	c.2	c.13
20	Privet	C2	<100	<1.2	<5
G21	Hornbeam, Sycamore	B2	<500	<6	<113
G22	3no. Hybrid Black Poplar	C2	<400	<4.8	<72
23	Magnolia	C2	260	3.1	30
24	Poplar	U	-	-	-
25	Pissard Plum	U	-	-	-
G26	Cypress	C2	<230	<2.8	<25
27	Hybrid Black Poplar	C2	360	4.3	58
28	Cypress	C1	180	2.2	15
29	Hornbeam	B2	700	8.4	222
30	Ornamental Cherry	C2	170	2	13
31	Hornbeam	B2	940	11.3	401
32	Fruit	C2	320	3.8	45
33	Fruit	C2	260	3.1	30
34	Hornbeam	B2	520	6.2	121
35	Hornbeam	B2	770	9.2	266
36	Beech	B2	670	8	201
37	Cypress	C2	130	1.6	8
38	Fruit	U	-	-	-
39	Beech	B2	810	9.7	296
G40	Cypress	C2	<150	<1.8	<10
41	Whitebeam	U	-	-	-
42	Hornbeam	B2	630	7.6	181
43	Whitebeam	C2	340	4.1	53
44	Hawthorn	C2	c.160	c.1.9	c.11

TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAs)
AT

FLINTS/BONHAMS, HOE LANE, FLANSHAM, BOGNOR REGIS, PO22 8NP

G45	Cypress	C2	<170	<2	<13
46	Red Oak	C2	c.650	c.7.8	c.191
47	Beech	B2	710	8.5	227
48	Norway Maple	C1	520	6.2	121
49	Pissard Plum	C1	260	3.1	30
50	Box Elder	C2	320	3.8	45
51	Cypress	C1	130	1.6	8
52	Cypress	C1	200	2.4	18
53	Cypress	C2	200	2.4	18
54	Norway Maple	C2	210	2.5	20
55	Beech	B2	c.760	c.9.1	c.260
56	Beech	B2	760	9.1	260
57	Robinia	C1	370	4.4	61
G58	Pittisporum, Holly, Cypress	C2	<300	<3.6	<41
59	Maple	C2	c.300	c.3.6	c.41
60	Maple	C2	c.250	c.3	c.28
61	Common Oak	C2	190	2.3	17
G62	Elm, Sycamore	C2	<250	<3	<28
63	Hornbeam	C2	490	5.9	109
64	Beech	B2	860	10.3	333
65	Ornamental Cherry	C2	c.250	c.3	c.28
66	Sycamore	B2	c.550	c.6.6	c.137
67	Hybrid Black Poplar	B2	c.350	c.4.2	c.55
68	Cypress	C2	150	1.8	10
G69	Hybrid Black Poplar	B2	<350	<4.2	<55
70	Weeping Willow	B2	790	9.5	284