

Simon Pryce Arboriculture

Report

Client: Estate Management [Hampstead] Ltd

Site: BAM Estate Gardens, London, NW3

Subject: Update of tree survey, including test boring of two trees

Inspection date: 28 September 2010

Report date: 22 October 2010

Reference: 10/132

Author: Simon Pryce, B.Sc., F.Arbor.A, C.Biol, M.I.Biol, MICFor
Arboricultural Association Registered Consultant

I Introduction

- 1.1 This report has been prepared on the instructions of Estates Management [Hampstead] Ltd. I have been asked to update my previous report of June 2006, ref 06/043, with particular reference to several trees which have evidence of decay.
- 1.2 The site was visited and the trees inspected on 28 September 2010 accompanied by the head gardener, James McArthur. The inspections were visual and made from ground level, except with trees 12 and 41, both of which were test bored with a Resistograph to measure internal decay. Open cavities in some other trees were inspected visually and probed.
- 1.3 The trees are listed and described in the attached schedule using the same numbering sequence as in the original report and their locations are shown on the attached site plan. This report updates the 2006 one but comments made in the earlier one still apply unless expressly noted otherwise in this one.

2 General observations and comments.

Trees

- 2.1 The trees are a mixture of broadleaved species, including some middle aged and mature Norway maple, sycamore, wild cherry, lime and horse chestnut in both of the main gardens. There are also some smaller mature specimens including hawthorn, crab apple and cherry plums. In 2006 several trees were found to be in decline or decayed, so were removed. Since then several others have been crown reduced or pruned and in some cases the subsequent regrowth has been very dense.
- 2.2 Most of the trees are in reasonable condition and they are being regularly checked and actively managed by the head gardener, although several have signs of decay, which prompted the request for this inspection. Two of these were test bored using a Resistograph, a purpose built instrument that records the resistance of the wood to a small diameter drill bit, allowing internal decay to be detected and assessed. These two trees are described in more detail below in addition to the comments made in the schedule.

T12 - Norway maple

- 2.3 This has well developed *Ganoderma* brackets growing at the base on the north side and, when inspected, they were producing spores, indicating that they had been growing actively, i.e. decaying the wood, for some time. The tree was test bored from three directions, the first one did not record electronically, so the paper trace from the machine has been scanned and annotated. The charts are attached at the end of the report. This reveals extensive decay, especially just above the brackets, which is typical of this fungus. There is some sound wood, so the tree is probably not in immediate danger of failing but it is in a well used part of the garden, indicated by soil compaction affecting some others nearby, and the decay will inevitably spread. Therefore the tree should be felled for safety without undue delay.

T41 Lime

- 2.4 This was noted to have an immature fruiting body of *Kretschmeria* [formerly *Ustulina*] *deusta* at the base in 2006 and recommended for reinspection. By 2010 this had developed into a cavity extending under most of the tree's base. Although that alone indicates that the tree should be felled it was also test bored above this [chart attached], revealing severe decay extending up the trunk. This tree is in a more remote location than tree 12 but is this part of the garden is still used and it near a boundary. It is in far worse condition than tree 12 and should be felled for safety without delay.

Planning restrictions

- 2.5 The estate is in a designated Conservation Area and three trees in the west garden are protected by Camden Council's TPO no C427 of 2004. The head gardener is aware of this and these works are being discussed with one of the council's tree officers, so the correct procedures for each case can be agreed and followed. The two test bored trees, 12 and 41 could be felled under the exemption for dead, dying and dangerous trees after giving the council five days notice.

Other matters

- 2.6 Any treework should be carried out in accordance with BS 3998: 1989, Recommendations for Treework, and any other relevant standards. It is essential that the contractor doing the work has appropriate third party and public liability insurance.
- 2.7 Where any trees or other woody plants are removed it would be advisable to remove the stumps and main roots if possible in order to prevent colonisation by honey fungus.

Simon Pryce

Simon Pryce B.Sc, F.Arbor.A, C.Biol, M.I.Biol, MICFor
Arboricultural Association Registered Consultant



Simon Pryce Arboricultural Consultant		Reference: 10/132
Client: BAM Estates Ltd	Site: BAM Estate grounds, London, NW3	Date: 28 September 2010
Drawn by: Simon Pryce, B.Sc., F.Arbor.A, C.Biol, M.I.Biol, M.I.C.For, based on on OS extract supplied by BAM Estates		Scale: Not to scale

Site: BAM Estate grounds, London NW3

Inspection date: 28 September 2010 by Simon Pryce - updates survey of June 2006, ref 06/043

Tree no.	Species	Age	Condition	Comments and recommendations	Cat.
The trees are described in order, starting in the garden south of Avenue Mansions then the garden to the west of Marlborough Mansions. They are also numbered on the attached site plan, based on an OS extract supplied by the estate.					
Avenue Mansions garden [East garden]					
1	Whitebeam <i>Sorbus aria</i>	-	-	Declining in 2006, now removed.	-
2	Purple cherry plum <i>Prunus pissardii</i>	MA	fair	Leans over a footpath but is well rooted and not large enough to be hazard. <ul style="list-style-type: none"> No work needed at present, but should be monitored. 	4
3	Winter cherry <i>Prunus subhirtella autumnalis</i>	M	fair / poor	Still contains dead wood but this is not a hazard. <ul style="list-style-type: none"> Dead wood could be removed but this is not urgent. 	4
4	Goat willow <i>Salix caprea</i>	MA	fair	Base is slightly distorted where it has grown over the edge of the concrete , but there are no signs that this has weakened the tree and it is otherwise sound and healthy. Reduced since 2006 and regrowing but clear of the building at present. <ul style="list-style-type: none"> Will need to be trimmed back from the building in due course. 	3
5	Whitebeam <i>Sorbus aria</i>	M	fair	Growing on the bank crossing the garden, leans but there are no obvious signs of instability. Has been reduced heavily and regrown vigorously with dense clusters of shoots round the pruning points. One inner main limb is decayed. <ul style="list-style-type: none"> Remove decayed inner limb and badly pruned low branch, clean out crown and thin epicormic shoots from previous work. 	2
6	Norway maple <i>Acer platanoides</i>	MA	fair	Drawn up where it has grown between the whitebeam and the next tree. Also reduced and has some new growth. These appear reasonably sound at present, but are prone to being shed if allowed to become too crowded. <ul style="list-style-type: none"> Could be improved by light thinning and formative pruning.. 	3
7	Norway maple <i>Acer platanoides</i>	MA	fair	Similar to the previous tree, also slightly one sided but sound and healthy otherwise. <ul style="list-style-type: none"> Thin the growth from the pruning points to favour stronger shoots. 	3
8	Plum <i>Prunus</i> variety	M	poor	Little change since 2006, still has sparse foliage and some decay but is still reasonably attractive and not large enough to be a major hazard. <ul style="list-style-type: none"> No work needed at present but its safe life is limited. 	3

Site:

BAM Estate grounds, London NW3

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Tree no.	Species	Age	Condition	Comments and recommendations	Cat.
9	Weeping silver pear <i>Pyrus salicifolia pendula</i>	M	good	Healthy, small ornamental tree. <ul style="list-style-type: none"> No work needed. 	4
10	Japanese maple <i>Acer palmatum</i>	M	fair	Has been thinned lightly and crown cleaned since the last inspection. <ul style="list-style-type: none"> No work needed at present. 	4
11	Purple leafed crab apple <i>Malus spp.</i>	MA	good	Healthy, relatively young tree. <ul style="list-style-type: none"> No work needed at present. 	4
12	Norway maple <i>Acer platanoides</i>	MA	poor	Has <i>Ganoderma</i> brackets on the base at the north side. These are actively producing spores and test boring revealed extensive decay [charts attached] in the base of the trunk. Its safe life is severely limited. <ul style="list-style-type: none"> Fell for safety. 	1
13	Pink hawthorn <i>Crataegus monogyna</i>	M	fair	Has been reduced in the past and grown on. Growing under the maple and crab apple but not unduly suppressed and will get more light with the maple removed. <ul style="list-style-type: none"> No work needed at present. 	4
14	Purple crab apple <i>Malus sp.</i>	M	fair	Appears well rooted but is growing on the bank and leans slightly down it. Has sparse foliage and some dead wood, possibly due to soil compaction by pedestrians. <ul style="list-style-type: none"> No work needed at present, but should be monitored. 	3
15	Ash leaf maple <i>Acer negundo</i>	M	fair	Leans heavily but looks well rooted and has evidently grown like this for most of its life. Branch ends have been reduced and grown on. Also has sparse foliage probably due to compaction of the nearby soil. <ul style="list-style-type: none"> No work needed at present, but should be monitored. 	3
16	Pink hawthorn <i>Crataegus monogyna</i>	M	fair	Has been reduced in the past and grown on. Has a cavity in the trunk but no signs of active decay. <ul style="list-style-type: none"> No work needed at present, but should be monitored. 	4
17	Pink hawthorn <i>Crataegus monogyna</i>	M	poor	Has also been reduced in the past. In 2006 it had a small <i>Ganoderma</i> bracket at the base but the decay was not extensive or active. Now there are no signs of the <i>Ganoderma</i> , but there is a small cluster of <i>Pholiota squarrosa</i> toadstools at the base. This causes decay, but there are few records of it causing failures and the tree is healthy otherwise and not a very large specimen. <ul style="list-style-type: none"> No work needed at present, but should be checked annually if retained. 	2
18	Norway maple <i>Acer platanoides</i>	MA	fair	Leans slightly, otherwise sound and healthy. Has been cut back from the building recently. <ul style="list-style-type: none"> Will need to be cut back every 2 - 3 years to maintain clearance from the building. 	3

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Tree no.	Species	Age	Condition	Comments and recommendations	Cat.
19	Cappadocian maple <i>Acer cappadocicum</i>	MA	fair	Has some cuts at 2.5 - 3m where lower branches were removed in the past but these are callusing well and there are no signs of significant decay. Has also been cut back to clear the building. <ul style="list-style-type: none"> No work needed at present, will need to be trimmed periodically to clear the building. 	4
20	False acacia <i>Robinia pseudoacacia</i>	MA	fair	Twin trunks that appear to have originated as shoots from the stump between them. The tree is reasonably healthy, but is pushing the low wall and pillar nearby. These do not appear dangerous, but the lean will increase as the tree grows. <ul style="list-style-type: none"> No urgent work needed but the wall will need repair or rebuilding if the tree is kept. 	4
Frontage of Marlborough mansions					
21	Purple cherry plum <i>Prunus pissardii</i>	M	fair	Has been cut back from the building regrown. One sided, leaning over the pavement, but sound looking. <ul style="list-style-type: none"> Reduce crown by 25 - 30%, reshape to balance, and lift to clear the pavement. 	3
22	Birch <i>Betula pendula</i>	M	poor	Has been topped recently and is starting to regrow. Will become bushy as this continues. <ul style="list-style-type: none"> No work needed at present but will need thinning in future. 	4
23	Laburnum <i>Laburnum anagyroides</i>	-	-	Removed after the 2006 survey.	-
24	Purple cherry plum <i>Prunus pissardii</i>	M	fair	Has also been cut back to clear the building, more asymmetrical than no.21. <ul style="list-style-type: none"> Reduce by 20 - 25%, balance, thin crown and lift over the pavement. 	3
Garden behind Marlborough Mansions [West garden]					
25	Winter cherry <i>Prunus subhirtella autumnalis</i>	M	good	Has some minor die back, healthy otherwise. <ul style="list-style-type: none"> No work needed at present. 	4
26	Crab apple <i>Malus spp.</i>	M	good	Healthy and in good condition. <ul style="list-style-type: none"> No work needed. 	4
27	Winter cherry <i>Prunus subhirtella autumnalis</i>	M	good	Has some minor die back but is healthy. Some limbs have been shortened recently. <ul style="list-style-type: none"> No work needed. 	4
28	Purple cherry plum <i>Prunus pissardii</i>	M	fair	TI of the TPO. Has had lower branches removed and been cut back from the nearby building. <ul style="list-style-type: none"> No work needed at present but will need cutting back and reshaping in future. 	3

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Tree no.	Species	Age	Condition	Comments and recommendations	Cat.
29	Hawthorn <i>Crataegus monogyna</i>	M	poor	Leans where it was suppressed by a large plane growing near the boundary and recently felled. Decay in the trunk has not advanced much since 2006 and the tree is not large enough to be a significant hazard. <ul style="list-style-type: none"> No work needed at present, but should be monitored. 	3
30	Lime <i>Tilia x europaea</i>	MA	fair	Has been pollarded at about 4m when younger, allowed to grow on and been reduced in the last few years. The new growth at the top is dense. <ul style="list-style-type: none"> Reduce back to former reduction points. 	3
31	Crab apple <i>Malus spp.</i>	M	poor	Leans heavily due to the large plane nearby and has a cavity in the trunk. This is also weakened slightly by the ingrown upright branch at about 2m. Healthy otherwise. <ul style="list-style-type: none"> No work needed at present, but should be monitored. 	3
32	London plane <i>Platanus acerifolia</i>	M	fair	Has been pollarded when younger and allowed to grow on. There are also signs of a lighter reduction in the past at about two thirds of its current height. Healthy but is starting to encroach on the building. <ul style="list-style-type: none"> Cut back to the previous reduction points 	3
33	Pink horse chestnut <i>Aesculus x carnea</i>	M	poor	Has been topped in the past and regrown, not very vigorously. Has some cankers on the trunk, which are common in this species, but no signs of significant decay. <ul style="list-style-type: none"> No work needed at present, but should be monitored. 	3
34	Sycamore <i>Acer pseudoplatanus</i>	M	fair	T2 of the TPO. Healthy but has been reduced in the last few years and grown on. In 2006 it was advised that it would need to be cut back periodically. <ul style="list-style-type: none"> Reduce back to former reduction points. 	4
35	Wild cherry <i>Prunus avium</i>	-	-	Probably T3 of the TPO. In 2006 it was leaning heavily and had <i>Ganoderma</i> brackets at the base. Test boring confirmed severe decay, so it was felled.	-
36	Wild cherry <i>Prunus avium</i>	M	fair	Possibly T3. More upright than tree 35 and has no signs of decay, although there has been concern about the possibility. <i>Ganoderma</i> and other decay fungi are not particularly infectious and visual inspection did not indicate any decay or other structural defects, so it was not test bored. <ul style="list-style-type: none"> No work needed at present but should be checked regularly. 	3
37	Purple crab apple <i>Malus spp.</i>	MA	good	Healthy, relatively young tree, slightly one sided but good otherwise. <ul style="list-style-type: none"> No work needed at present. 	4
38	Sycamore <i>Acer pseudoplatanus</i>	MA	fair	Has been pollarded when younger and reduced several years ago, following which it has grown on but there is some dead material. <ul style="list-style-type: none"> Remove dead material, thin out new growth. 	3

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Tree no.	Species	Age	Condition	Comments and recommendations	Cat.
39	London plane <i>Platanus acerifolia</i>	MA	fair	Has been pollarded when younger and recently reduced, apparently following structural problems in the church nearby. Noted in 2006 that new growth would need regular cutting back. <ul style="list-style-type: none"> • Reduce back to former pruning points. 	3
40	Lime <i>Tilia x europaea</i>	MA	fair	Has also been reduced, although it does not appear to be close enough to any buildings to have caused any problems. <ul style="list-style-type: none"> • Cut back new growth every 3 - 4 years. 	3
41	Lime <i>Tilia x europaea</i>	M	fair	Reduced a few years ago. Early fruiting bodies of <i>Kretschmeria [Ustulina] deusta</i> were found at the base on the north side in 2006 and by 2010 had caused major decay, leaving a cavity under most of the base. test boring higher up confirmed that this is also spreading up the trunk. <ul style="list-style-type: none"> • Fell for safety. 	1
42	Lime <i>Tilia x europaea</i>	MA	fair	Leans due to growing near the large horse chestnut. Has a scar at the base but no signs of major decay and has been reduced in the last few years. <ul style="list-style-type: none"> • Thin out new growth to favour stronger shoots.. 	3
43	Horse chestnut <i>Aesculus hippocastanum</i>	M	poor	Leans to the west and has a long cavity in the trunk. The centre is decayed, but there is good callus development at the edges of the wound. Upper growth was thinned in about 2005/6. Has been infested by leaf miner. Heavy pruning would reduce weight but lessen the tree's vitality and ability to tolerate leaf miner infestations. <ul style="list-style-type: none"> • Reduce lightly to improve balance. Decay cavity should be monitored. 	2
44	Wild cherry <i>Prunus avium</i>	-	-	Removed since 2006.	-

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Notes

Tree ages are estimated as follows:

Immature.	[IM]	Newly planted or self-set tree.
Semi mature	[SM]	Young tree that is established but has not yet attained the size or form of a fully developed example of its type.
Young middle aged	[YMA]	Between semi mature and middle aged.
Middle aged	[MA]	Between one third and two thirds of its estimated lifespan.
Mature	[M]	Over two thirds of it's estimated life span.
Over mature	[OM]	Declining and/or approaching the end of it's natural lifespan.
Dying/Dead	[D]	Dead/dying or so badly decayed that it should be removed without delay if a potential threat.

The category system is intended to give a general indication of the urgency with which trees need attention, but should be used with the more detailed observations and comments. Colours relate to drawings where applicable.

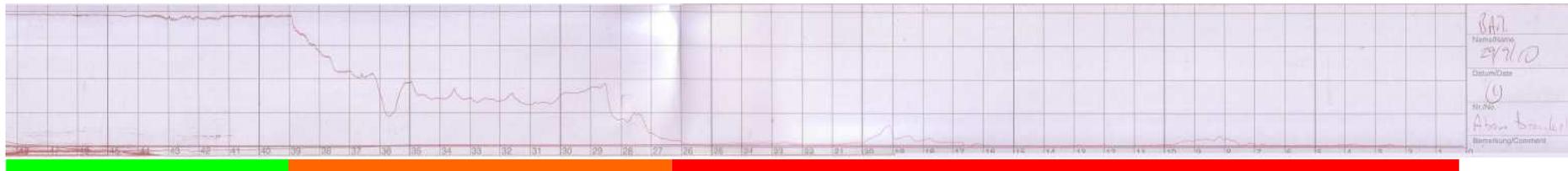
Category. Tree condition

- 1 Trees needing urgent attention in the interests of safety [0 - 3 months].
- 2 Trees needing attention without undue delay [3 - 12 months].
- 3 Trees that can be retained safely with a moderate amount of work or reassessment in the near future [12 - 24 months].
- 4 Trees needing little or no work in the foreseeable future to keep them safe [24 - 36 months].

Terms used in the survey relate to British Standard 3998: 1989, Recommendations for treework unless otherwise stated.

Observations are made from ground level unless stated otherwise.

Resistograph readings - Bam Estate, 28 September 2010



sound wood 39cm significant decay 26cm minimal resistance, severe decay or hollow

Tree 12, Norway maple, test bore no.1. Drilled from north side just above *Ganoderma* brackets, soft wood setting.

Electronic recording was not made, so this is an annotated scan of the paper trace from the instrument, using the same colour coding as the electronic ones on the following pages.

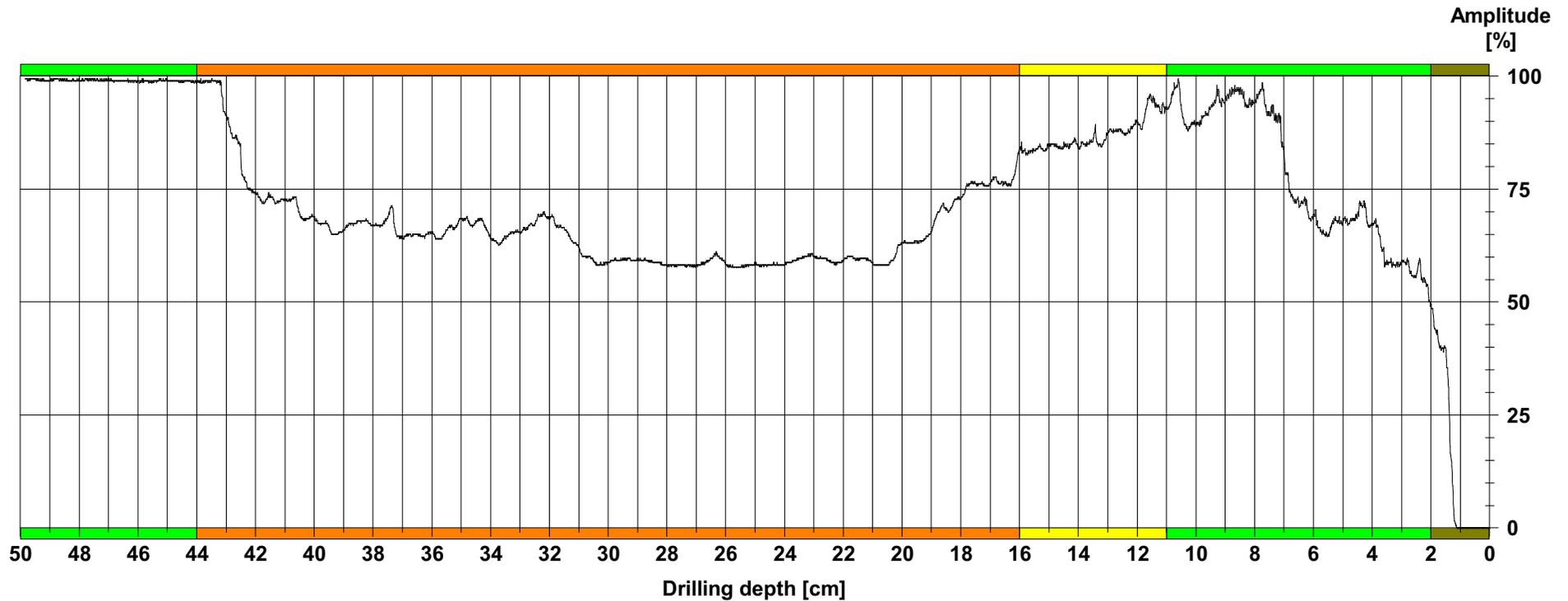
Notes:

The outside of the tree is at the right hand side of the page.

The number scale is in centimetres, so full length 500mm traces printed at A4 are reduced to about 35% of their actual size.

Measuring / object data

Measurement no. : 2	Time : 13:07:37	Location : BAM estate
Drilling depth : 49,85 cm	Avg. curve : off	Name : tree 12
Wood species : Soft (1)	Diameter : 55,0 cm	Length of cavities : ---
ID number : 2	Level :	Min. width / height : ---
Advance : 66,0 cm/min	Direction : west	Start of detecting : ---
Date : 28.09.2010	Object species : Norway maple	Detect last cavity : ---



Assessment

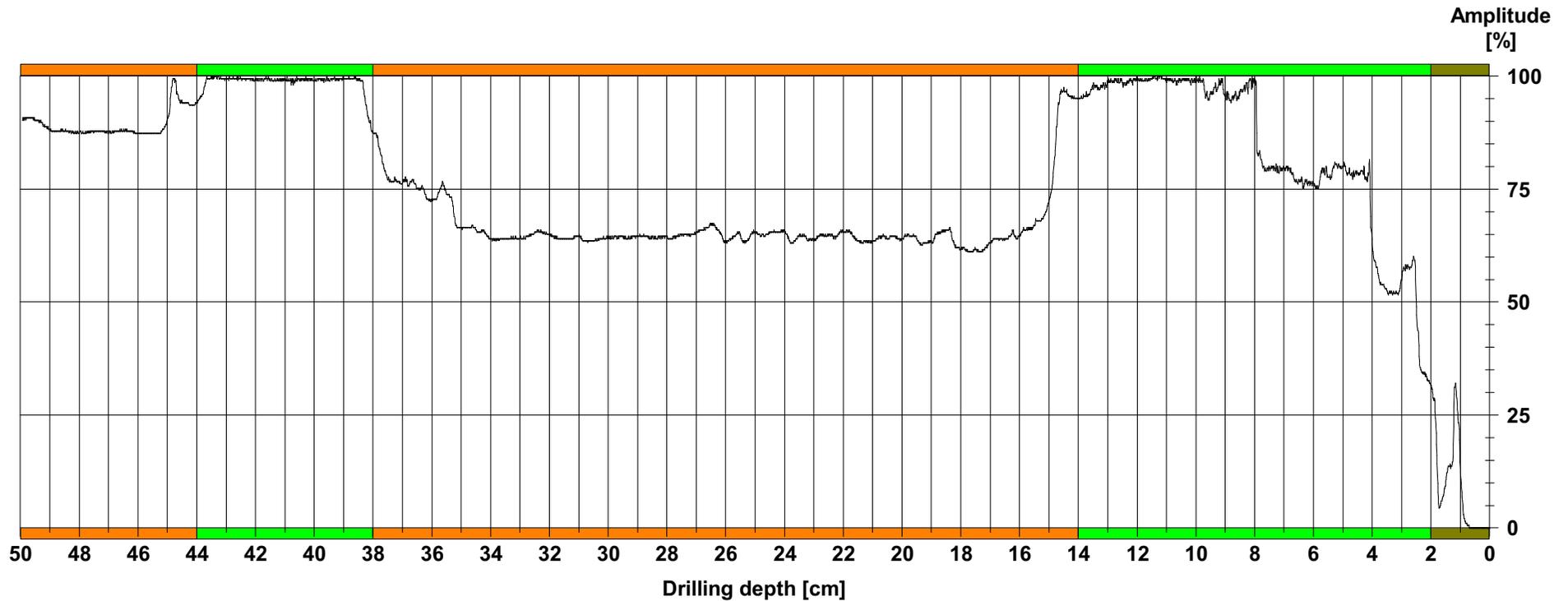
	From	0,0 cm	to	2,0 cm	:	Bark
	From	2,0 cm	to	11,0 cm	:	Sound wood
	From	11,0 cm	to	16,0 cm	:	Incipient decay
	From	16,0 cm	to	44,0 cm	:	Decay
	From	44,0 cm	to	50,0 cm	:	Sound wood
	From	0,0 cm	to	0,0 cm	:	

Comment

Drilled just above brackets from west side, shows some sound outer wood but extensive internal decay. Soft setting

Measuring / object data

Measurement no. : 3	Time : 13:15:03	Location : BAM estate
Drilling depth : 49,95 cm	Avg. curve : off	Name : tree 12
Wood species : Soft (1)	Diameter : 55,0 cm	Length of cavities : ---
ID number : 3	Level :	Min. width / height : ---
Advance : 67,2 cm/min	Direction : south	Start of detecting : ---
Date : 28.09.2010	Object species : Norway maple	Detect last cavity : ---



Assessment

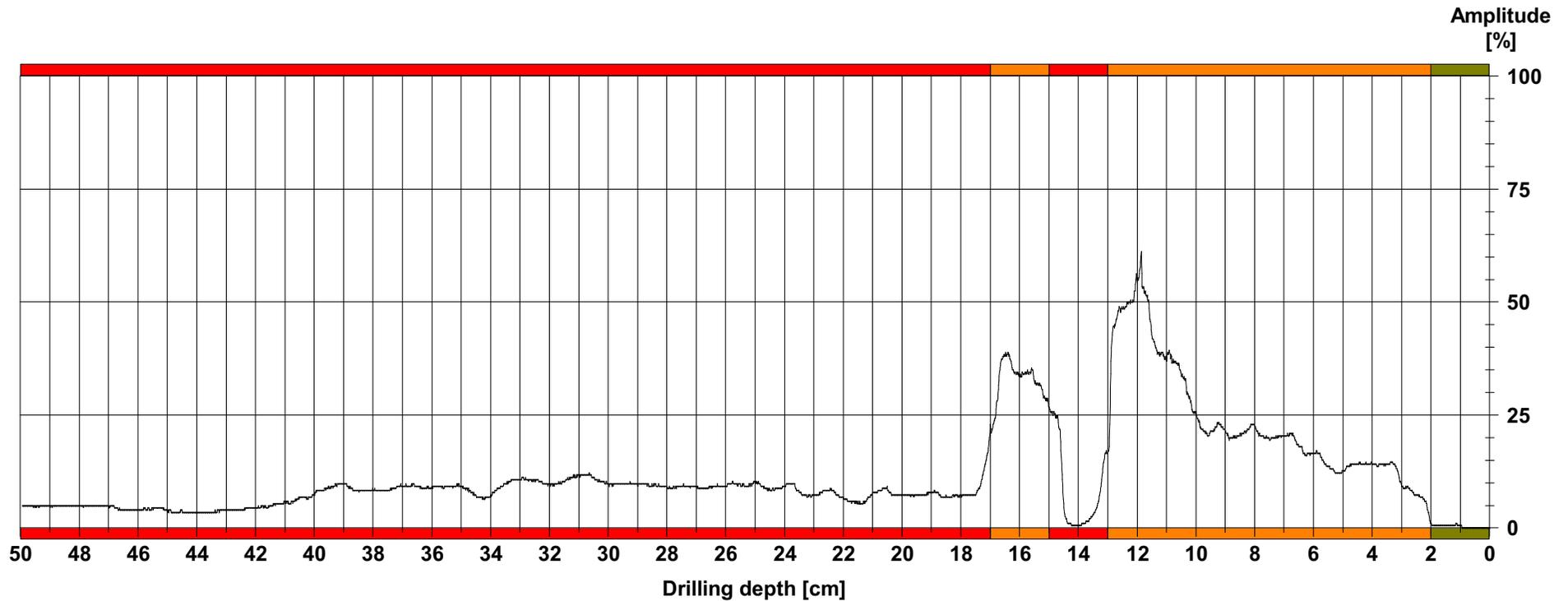
	From	0,0 cm	to	2,0 cm	: Bark
	From	2,0 cm	to	14,0 cm	: Sound wood
	From	14,0 cm	to	38,0 cm	: Decay
	From	38,0 cm	to	44,0 cm	: Sound wood
	From	44,0 cm	to	50,0 cm	: Decay
	From	0,0 cm	to	0,0 cm	:

Comment

Drilled from south side opposite Ganoderma brackets and higher, shows extensive decay with some islands of sound wood. Soft setting

Measuring / object data

Measurement no. : 4	Time : 13:33:40	Location : BAM estate
Drilling depth : 49,95 cm	Avg. curve : off	Name : Tree 41
Wood species : Soft (1)	Diameter : 650,0 cm	Length of cavities : ---
ID number : 4	Level : 50,0 cm	Min. width / height : ---
Advance : 67,2 cm/min	Direction : east	Start of detecting : ---
Date : 28.09.2010	Object species : Lime	Detect last cavity : ---



Assessment

■	From	0,0 cm	to	2,0 cm	:	Bark
■	From	2,0 cm	to	13,0 cm	:	Decay
■	From	13,0 cm	to	15,0 cm	:	Advanced decay
■	From	15,0 cm	to	17,0 cm	:	Decay
■	From	17,0 cm	to	50,0 cm	:	Advanced decay
□	From	0,0 cm	to	0,0 cm	:	

Comment

Drilled on soft wood setting well above cavity at base.
 Typical of advanced decay by Kretschmeria, major loss of wood strength and texture