Simon Pryce Arboriculture

Report

Client:	**Kernahans Property Consultants**
Site:	**Belsize Court**
Subject:	**Decay assessment of ash tree**
Inspection date:	**25 November 2014 and 11 February 2015**
Report date:	**14 February 2015**
Reference:	**14/118**
Author:	**Simon Pryce, B.Sc., F.Arbor.A, C.Biol, MSB, MICFor** **Arboricultural Association Registered Consultant**

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Arboricultural Association
REGISTERED CONSULTANT

1 Introduction

1.1 This report has been prepared on the instructions of Kernahans Property Consultants on behalf of the residents of Belsize Court, Wedderburn Road, NW3. I have been asked to inspect an ash tree growing in the grounds to the rear of Blocks C and D and is tree 35 in my initial report of 1998 and the subsequent ones.

1.2 This follows concern about the tree's safety and potential for damage in the event of a major failure, given its proximity to blocks C and D, the regularly used parts of the grounds near them and the adjacent primary school.

2 Executive summary

2.1 The tree has been inspected regularly, the decay at the base became apparent a few years ago and has spread aggressively since then. Comprehensive probing and test drilling show that there is now an extensive cavity and decayed timber at the base, which has weakened the tree considerably and will continue to spread rapidly. Given the tree's size and location it is an immediate major hazard. The permitted crown reduction would not be effective and it should be felled without delay under the relevant provisions of the legislation.

3 Background

3.1 No decay was found in the routine reinspection in 2008; it was initially noted during an inspection of tree in 2011 in connection with subsidence in Block C. At that time it was not considered severe enough to warrant removing the tree, but indicated that its safe life was limited. The tree was recommended for felling then as a remedy for the subsidence; in the event the block was underpinned, so the tree was retained.

3.2 However reinspection in November 2014 found that the decay had advanced significantly. A 400mm steel probe penetrated soft wood in a decaying wound on the S side of the trunk for about 300mm before encountering any appreciable resistance. In the larger cavity opening on the SW side the probe could be moved around in what is evidently an extensive cavity and was too short to reach the other side.

3.3 Camden Council have queried the need to remove the tree and asked for further tests, so it was reinspected on 11 February 2015, when the cavity was investigated with a probe 1m long and the lower trunk test drilled using a Resistograph. This is a purpose built instrument that measures the resistance of the timber to a fine diameter drill bit and plots it on a chart so the internal condition of the tree can be assessed. The annotated charts are appended with photographs of the probe.

4 The tree

4.1 The tree is a large specimen that probably dates from about the time Belsize Court was built and is about 17m high with a single trunk 880mm in diameter at 1.5m. It has been reduced in the past and grown on. It is similar in size to the other larger trees and its size suggest that it dates from about the time Belsize Court was built. Some of these are becoming over mature and have been lost to decay in recent years, including tree 2, a similar sized ash near Lyndhurst Gardens and tree 40, a silver maple, both of which were found to be severely decayed and which were felled under the exemption for removing dangerous trees. (Decision ref 2009/3034/T).

Probe

4.2 The 1m long probe went into the cavity opening on the SW side of the trunk for its full length. It could be moved around and touched wood or soil in places, confirming the presence of an irregular shaped cavity 1m or more across under the base of the tree.

Test drilling

4.3 The tree was test drilled in five locations round the base and lower trunk and the annotated charts are attached. These confirm the presence of an extensive decay cavity under the tree, with only a thin shell of sound wood on the S and W sides. This is thicker on the N and E sides and the transition from sound to decayed wood is less obvious on the charts. However in no.5, which was higher than the others that is due to the decay being largely in the base of the tree and reducing with height. That is typical of many decay fungi and is a similar pattern to that found in tree 2, although no fungal fruiting bodies were found in that tree or this one.

5 Discussion

5.1 The species of fungus involved has not been identified, but for practical purposes that is irrelevant, as the comprehensive investigation undertaken here confirms the findings of the inspection in late 2014. It shows that the tree has a large open cavity under the base and extensive decay in the wood around it. No external signs of decay were found in 2008 and, while it was noted in 2011 it was not considered severe enough to warrant removing the tree at that time. Since then it has become much more extensive, indicating that the fungus is spreading aggressively so, if the tree is left, its condition will continue to deteriorate rapidly. This is not something that can be monitored precisely or accurately and it is an imminent major hazard.

5.2 The permitted crown reduction would lessen the uprooting risk slightly, but the decay is too extensive for that to be effective or reliable and, as the tree is near buildings and well used areas including the adjacent school it should be felled for safety without delay. This can be done under Regulation 14 of the 2012 TPO Regulations which states that consent is not needed for *"the cutting down, uprooting, topping or lopping of a tree, to the extent that such works are urgently necessary to remove an immediate risk of serious harm, or to such other extent as agreed in writing by the authority prior to the works being undertaken."*

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Photographs

Probe inserted into the cavity on the SW side of the tree.

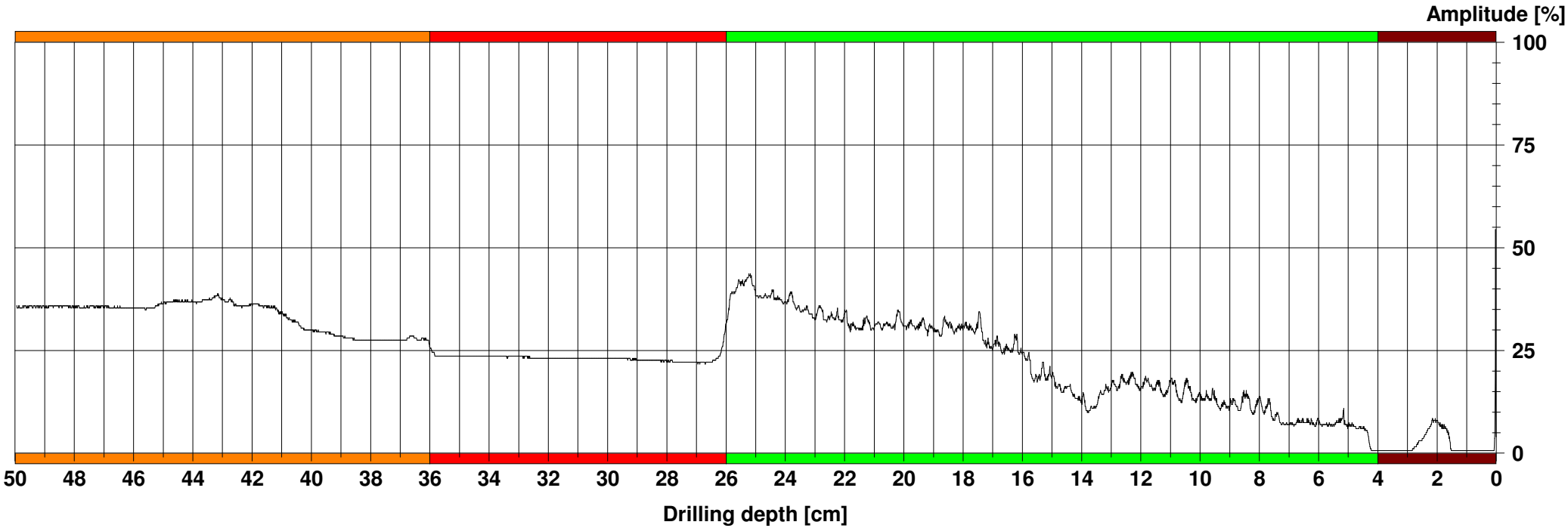
Probe and tape - numbers not very clear but 43 and 44 inches are just visible next to the handle.

Measuring / object data

Measurement no.	: 1	**Tilt**	: ---	**Name**	:
Drilling depth	: 49,95 cm	**Avg. curve**	: off		
Wood species	: Hard (2)	**Diameter**	: 88,0 cm		
ID number	: 14/118	**Level**	: 25,0 cm		
Date	: 11.02.2015	**Direction**	: From S		
Time	: 14:45:06	**Object species**	: Ash		
Advance	: 51 cm/min	**Location**	: Belsize Court		

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	0,0 cm	**to**	4,0 cm	:	Bark
From	4,0 cm	**to**	26,0 cm	:	Sound wood
From	26,0 cm	**to**	36,0 cm	:	Advanced decay
From	36,0 cm	**to**	50,0 cm	:	Decay
From	0,0 cm	**to**	0,0 cm	:	
From	0,0 cm	**to**	0,0 cm	:	

Comment

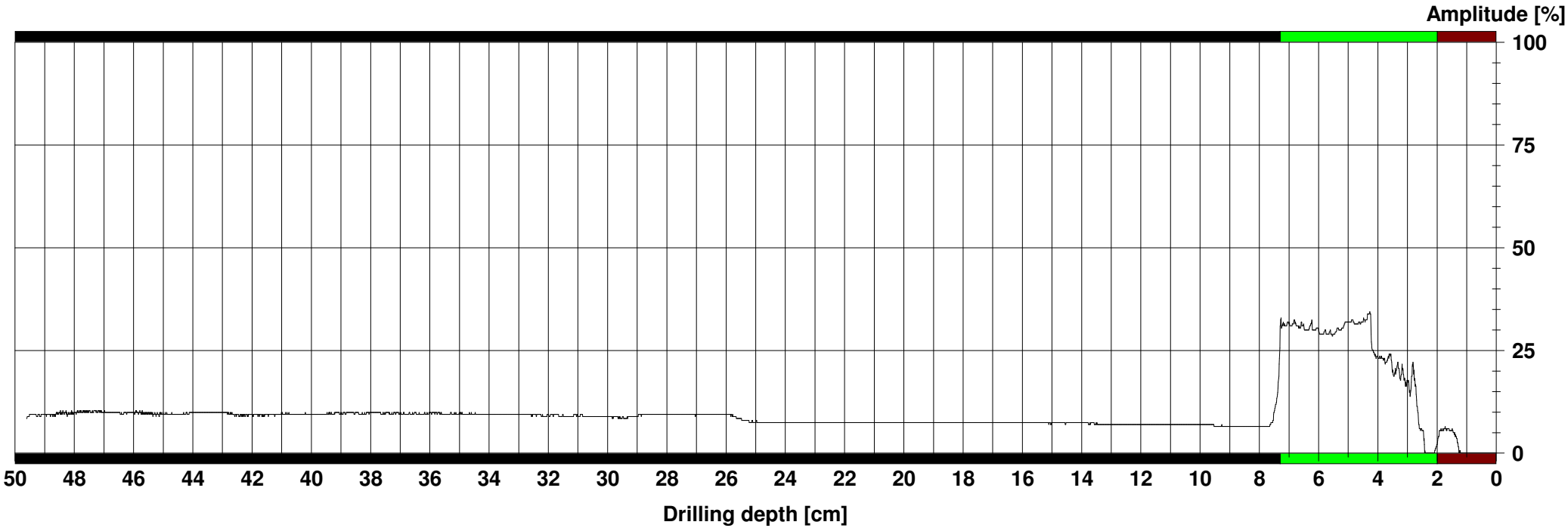
Serrated pattern from 4 - 26 cm is typical grain texture of sound wood, resistance increases progressively due to drag on the drill. Flat line 26 - 36 indicates v severe decay or cavity, variation beyond that indicates some material present but soft and has no grain left.

Measuring / object data

Measurement no.	: 2	**Tilt**	: ---	**Name**	:
Drilling depth	: 49,61 cm	**Avg. curve**	: off		
Wood species	: Hard (2)	**Diameter**	: 88,0 cm		
ID number	: 14/118	**Level**	: 30,0 cm		
Date	: 11.02.2015	**Direction**	: From SW		
Time	: 14:51:25	**Object species**	: Ash		
Advance	: 48 cm/min	**Location**	: Belsize Court		

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	0,0 cm	**to**	2,0 cm	:	Bark
From	2,0 cm	**to**	7,3 cm	:	Sound wood
From	7,3 cm	**to**	50,0 cm	:	Cavity
From	0,0 cm	**to**	0,0 cm	:	
From	0,0 cm	**to**	0,0 cm	:	
From	0,0 cm	**to**	0,0 cm	:	

Comment

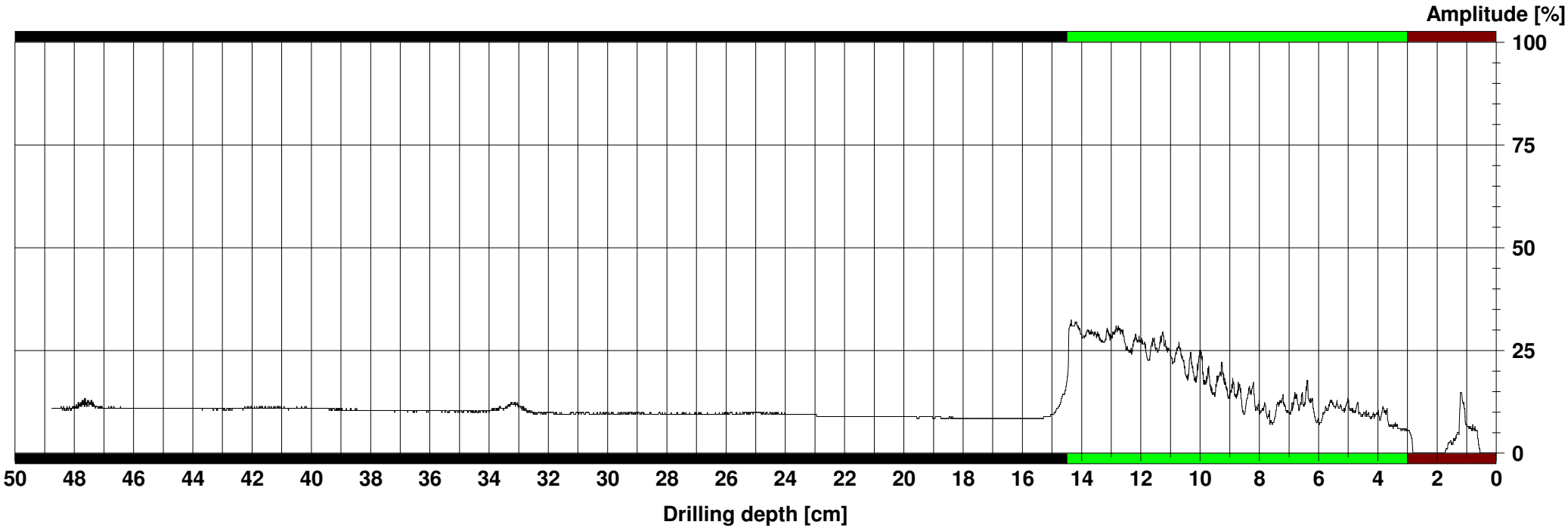
Just above larger wound. Confirms the cavity found by probing

Measuring / object data

Measurement no.	: 3	**Tilt**	: ---	**Name**	:
Drilling depth	: 48,76 cm	**Avg. curve**	: off		
Wood species	: Hard (2)	**Diameter**	: 88,0 cm		
ID number	: 14/118	**Level**	: 25,0 cm		
Date	: 11.02.2015	**Direction**	: From W		
Time	: 14:56:52	**Object species**	: Ash		
Advance	: 50 cm/min	**Location**	: Belsize Court		

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	0,0 cm	**to**	3,0 cm	:	Bark
From	3,0 cm	**to**	14,5 cm	:	Sound wood
From	14,5 cm	**to**	50,0 cm	:	Cavity
From	0,0 cm	**to**	0,0 cm	:	
From	0,0 cm	**to**	0,0 cm	:	
From	0,0 cm	**to**	0,0 cm	:	

Comment

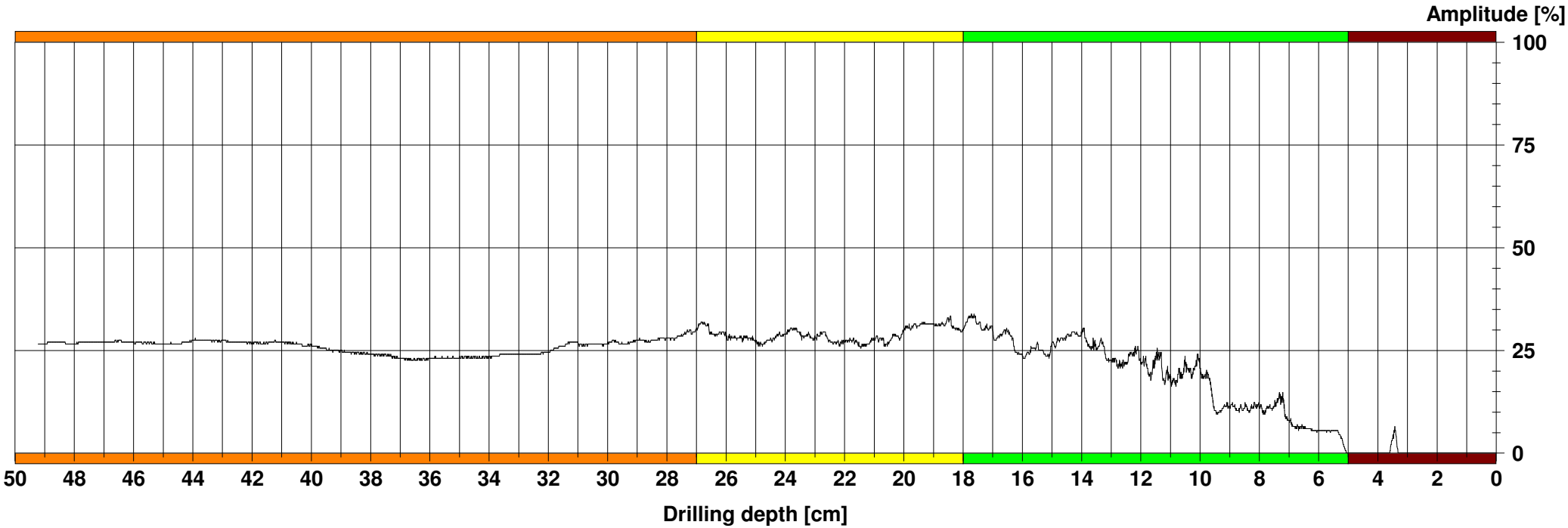
From W (R as seen from the lawn). Also confirms the cavity found by probing.

Measuring / object data

Measurement no.	: 4	**Tilt**	: ---	**Name**	:
Drilling depth	: 49,22 cm	**Avg. curve**	: off		
Wood species	: Hard (2)	**Diameter**	: 88,0 cm		
ID number	: 14/118	**Level**	: 25,0 cm		
Date	: 11.02.2015	**Direction**	: From E		
Time	: 15:00:42	**Object species**	: Ash		
Advance	: 48 cm/min	**Location**	: Belsize Court		

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	0,0 cm	**to**	5,0 cm	:	Bark
From	5,0 cm	**to**	18,0 cm	:	Sound wood
From	18,0 cm	**to**	27,0 cm	:	Incipient decay
From	27,0 cm	**to**	50,0 cm	:	Decay
From	0,0 cm	**to**	0,0 cm	:	
From	0,0 cm	**to**	0,0 cm	:	

Comment

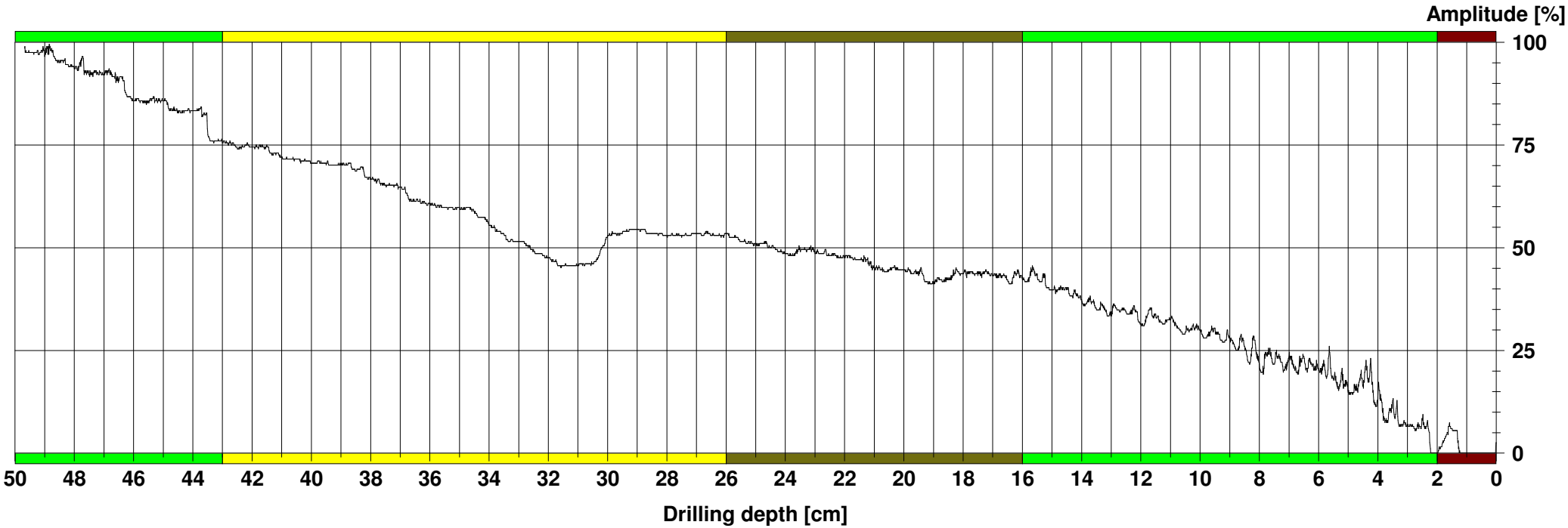
From E (LHS from lawn). Transitions less clear but the overall resistance levels off and the serrated pattern become less pronounced from 18cm. From 27cm the pattern becomes even less pronounced and the resistance drops despite increasing depth.

Measuring / object data

Measurement no.	: 5	**Tilt**	: ---	**Name**	:
Drilling depth	: 49,68 cm	**Avg. curve**	: off		
Wood species	: Hard (2)	**Diameter**	: 88,0 cm		
ID number	: 14/118	**Level**	: 50,0 cm		
Date	: 11.02.2015	**Direction**	: From N		
Time	: 15:07:11	**Object species**	: Ash		
Advance	: 48 cm/min	**Location**	: Belsize Court		

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	0,0 cm	**to**	2,0 cm	:	Bark
From	2,0 cm	**to**	16,0 cm	:	Sound wood
From	16,0 cm	**to**	26,0 cm	:	Suspected decay
From	26,0 cm	**to**	43,0 cm	:	Incipient decay
From	43,0 cm	**to**	50,0 cm	:	Sound wood
From	0,0 cm	**to**	0,0 cm	:	

Comment

Again transitions are not very clear, but serrated pattern goes reduces and line starts to level from about 16cm. Clearer indication of decay from 26 - 43cm, from there resistance steps up and serrated pattern becomes more apparent, though not as much as 2 - 16cm