

Landmark Trees

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**FURTHER INVESTIGATION REPORT:**

11 Templewood Avenue,  
Hampstead,  
London NW3 7UY

**REPORT PREPARED FOR:**

John Plummer  
Greenmantle  
Woodfield Nurseries  
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London NW9 7NB

**REPORT PREPARED BY**

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Ref: GMT/11TWA/PCS/01

Date: 23<sup>rd</sup> December 2015

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## **Site Details**

**Site Address:** 11 Templewood Avenue, Hampstead, London NW3 7UY

**Client / Agent:** John Plummer, Greenmantle

**Surveyor:** Kim Dear

**Date of Inspection:** 30<sup>th</sup> November 2015

## **Instruction**

Carry out Picus Tomograph Decay Detection on the main stem of a Eucalyptus Tree.at the residential property 11 Templewood Avenue, Hampstead, London NW3 7UY.

## **Picus Sonic Tomography**

The Picus Sonic Tomograph is made by a German company called Argus-Electronic-GmbH. It is a specialised electronic instrument which can 'look' internally into a branch or tree trunk and display a computer generated image of its condition. It achieves this by measuring the speed that sound travels through the wood in a number of different positions and directions. Sound travels fastest through solid wood. Decayed wood will slow its path. By measuring the speed that sound takes to pass through a tree, an idea of its condition can be obtained.

The PICUS Sonic Tomograph consists of 8 to 14 sonic sensors. These sensors are spaced out evenly around the circumference of the trunk. They detect stress waves induced by manual impact propagated through the wood. Time-of-sound-transmissions are used to generate two-dimensional pictures that document decay and cavities.

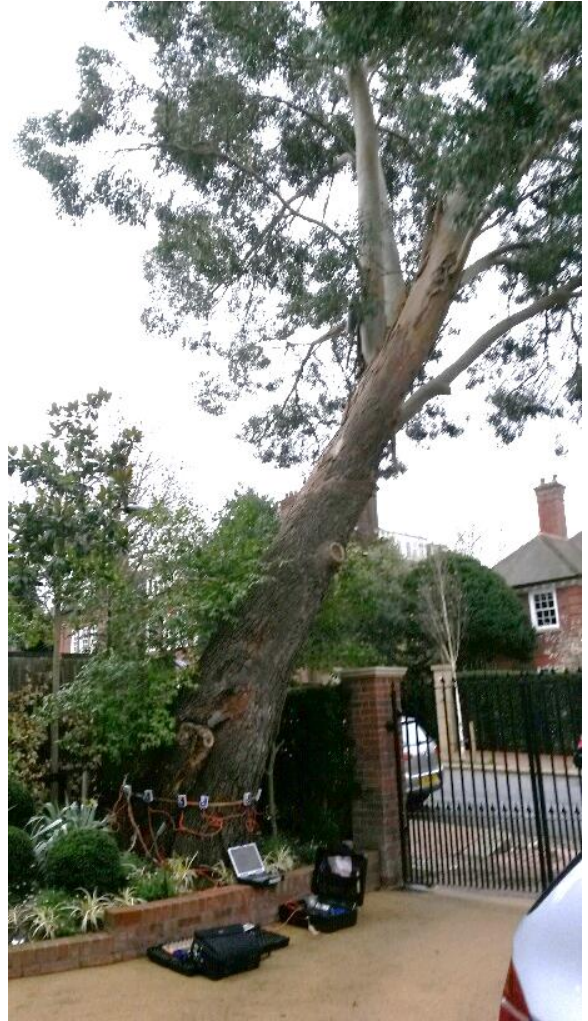
The sounds are generated manually by tapping on a number of metal nails with a hammer. Special sensors fixed around the stem read the interval the sound takes to travel through the wood. Once all nails have been tapped, and recordings taken, the computer software works out a visual image that requires professional assessment to assess decay.

## Tree Details

**Species:** Eucalyptus

**Diameter:** 980mm

**Height:** 14m



Photographs 1 & 2 Showing Picus Sonic Tomograph in position

## Observations

The tree is situated 2m from the eastern boundary of the property, in a raised walled bed (30cm). There has been a recent new driveway laid 1m to the west of the tree that continues around to the northwest. The main stem leans to the south over the boundary and footpath.

There is a stub where a limb has been removed at 1.5m on the north side of the stem; this has decayed down the stem to ground level. There is an electrical control box attached to the south side of the stem, and associated wiring to a light positioned at 6m in the crown.

Honey fungus has been reported in the shrubs adjacent to the tree, although there are no fruiting bodies currently present, there is a degree of bark delamination and staining to the west. The crown and leaves appear typical for the species.

## Results

The tomograph shows an area of decay to the north of the stem with a cavity shown in blue, advanced decay coloured pink/purple and the incipient or early decay coloured green.

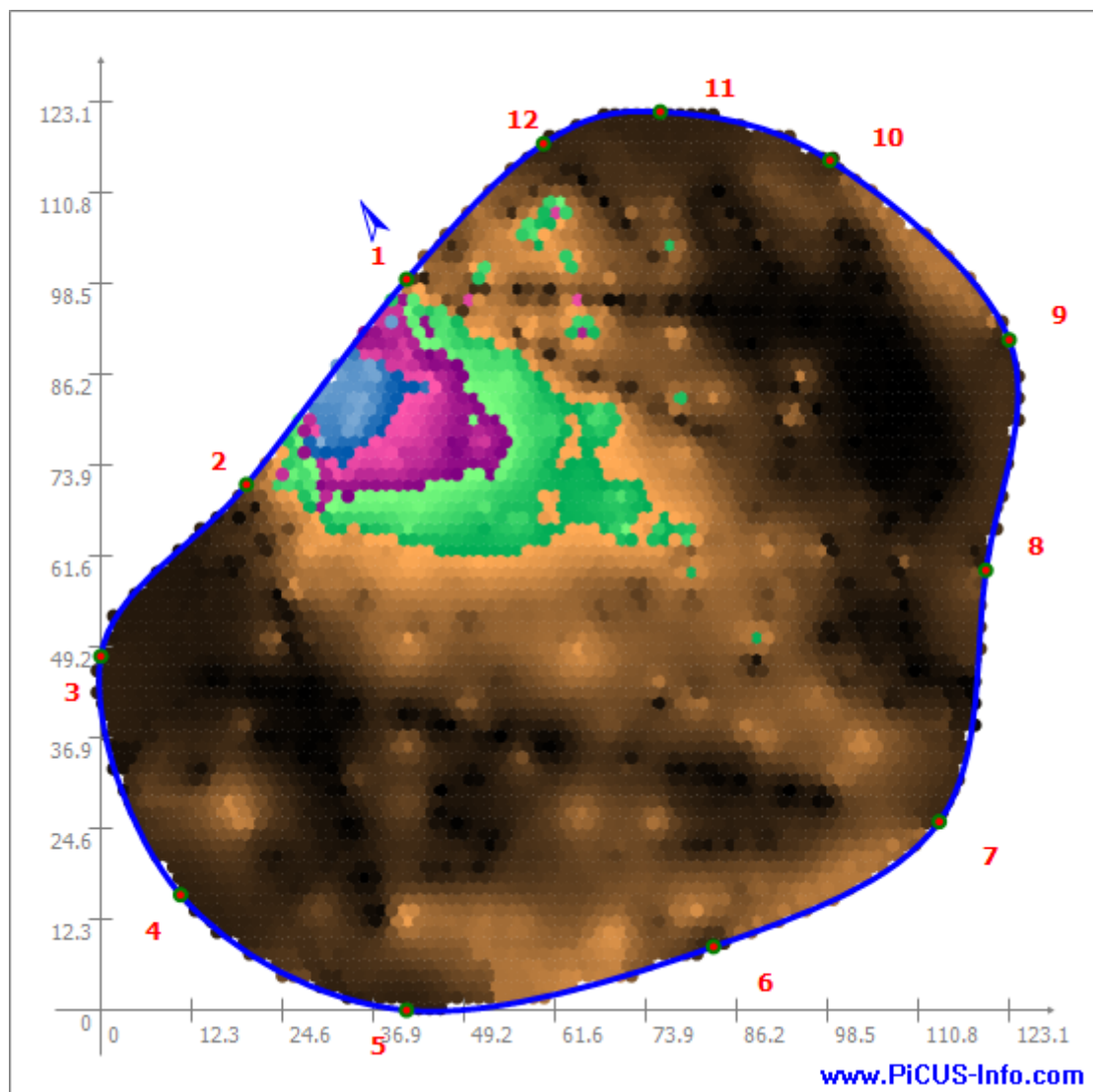


Image 1: Picus Tomograph result at ground level.

## **Conclusion**

The area of decay is localised to the north where the stub from the removed limb has continued to decay downwards. Late stage honey fungus can cause white rot in the heartwood of the tree, although this hasn't yet manifested. The crown and leaf cover look normal, and show no sign of dieback or decline, suggesting that the root structure and cambium are still functioning. This indicates that the honey fungus is at an early stage (quite probably infecting the tree when the driveway and retaining wall were constructed).

## **Recommendations**

Whilst the structural integrity of the stem is currently okay, the progressive weakening of the root system by honey fungus, will eventually cause the tree to decline; as the tree has a severe lean over the path and road it should be felled. Whilst some extenuating circumstances might be extended to an ancient oak tree, the gum is neither old, attractive nor native. To my mind, there is little to deliberate, where a known risk arises to the highway with little benefit in maintaining the tree in place.