Surveyor : Jamie Myers **Date/conditions: 25.10.23 Dry**

Client/Site address;

Raj Padhiar Mulberry Close Properties ltd

Mulberry Close

Hendon NW4 1QW

Scope

Undertake decay detection analysis of large Beech tree (T48 on report by Artimis tree services) using a combination of VTA (visual tree assessment), sounding hammer and Picus tomography.

Report findings and provide recommendations.

About Picus Tomograph

The method of decay detection is based on the fact that solid wood is a better sound wave conductor than wood that is decayed or structurally damaged. The Picus Sonic Tomograph consists of a set of sensors which are strategically placed around the area of the tree.
Each sensor is connected to a nail which is tapped through the bark into contact with the wood. This process is of low risk to the tree's system. The sensors are connected by a data cable to a power supply and laptop computer. Each nail is tapped in turn and the sound wave flight paths are measured by each of the sensors. The test data is compiled by the Picus system software algorithm into a matrix of collected values. This results in a dense network of sound velocities through a cross-section of the tree.

The velocity of sound through wood depends on the degree of elasticity and density of the material. Tree damage such as white rot, brown rot, soft rot, cavities, and cracks reduce the

elasticity and density of the wood.

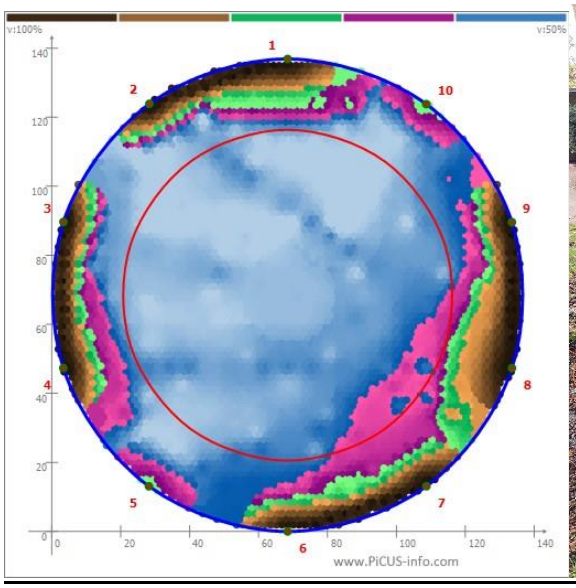
The data from the sensors is translated by the computer software into a representative colour tomographic image of the cross-section of the tree. This tomogram gives information about the presence of decay, cavities, and faults in the tree. Features such as remaining wall thickness, this is referred to as the T/R ratio, the opening angle of cavities and percentage of solid, decayed or altered wood can be measured by the computer.

About the surveyor

Jamie has been an arborist for over 30 years, starting Myers Tree Services in 1995. Mainly a contracting enterprise but growing the consultancy business to utilise his experience. He is qualified by holding the A.A Technicians certificate along with the Professional Tree Inspectors certificate, He has had training in the use of the Picus Tomograph from Sorbus international (uk importers).

Jamie has surveyed trees for numerous local authorities, TFL, housing associations, national and international companies. As well as advising clients when quoting for the contracting side of the business.

Test



Visual observation of Gannoderma fungal brackets between most of the buttress roots, stem struck with sounding hammer from ground level up to a height of 2m with an obvious drum sound at the lower level. This is where I placed the sensors to give the best indication of the extent of the decay.

Analysis

The tomograph (image on left above) shows extensive decayed timber (see key above picture) with blue showing wood of 50% or less density.

The red circle overlaid shows the T/R 30% ratio which is recognised as a safe residual wall thickness, less than that showing as brown or black on the test means an intervention is required. In this case the tree has less than 10% in four patches and no unaffected wood in the remainder.

Recommendations

Using all of the above evidence and the species of tree we recommend that this tree is removed at the earliest opportunity, within 3 months.