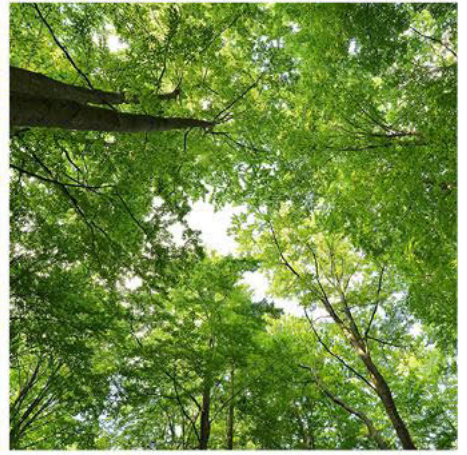
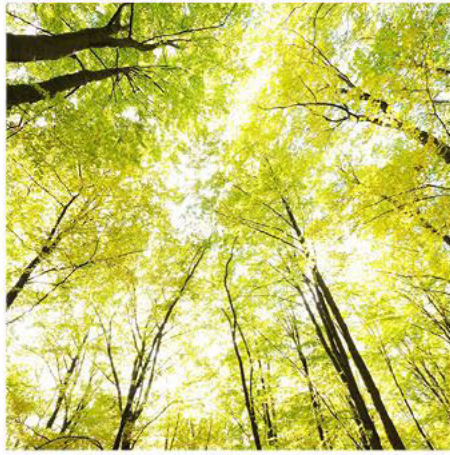




Gale Tree Consultancy

Tree Condition Report

Wildwood, Mannings Heath, RH13 6LZ

November 2025



<u>Contents</u>	Page Number
<u>Summary</u>	3
1.0 <u>Introduction</u>	4
2.0 <u>Scope of Report</u>	4
3.0 <u>Results of Inspection</u>	5
4.0 <u>Summary of Results</u>	12
5.0 <u>Conclusion</u>	13
6.0 <u>Recommendations</u>	14
7.0 <u>Appendices</u>	
Appendix 1 Method of Inspection	15
Appendix 2 Survey Key	18
Appendix 3 Beaufort Scale	19



Executive Summary

- A mature tree in the garden of a rural, residential property
- A known wood decay fungus was recorded on numerous buttress and surface roots around the tree
- Sonic tomography did not yield any signs of decay
- Electrical resistance tomography and microdrill use shows decay is forming below ground level
- A recommendation has been made to undertake a crown volume reduction, although an option to fell the tree has also been suggested
- If retained, reassess within two years of the report's date



1.0 Introduction

1.1 Client and Address

- [REDACTED], Wildwood, Mannings Heath, RH13 6LZ

1.2 Site Address if Different from the Above

- See above

1.3 Date of Inspection

- 20th November 2025

1.4 Name of Inspector

- Andrew Gale *MICFor Dip Arb L6 (ABC) M.Arbor.A*

1.5 Our Reference

- TCR/704/25

1.6 Instructions Received

- I have been instructed by the client to undertake an internal tree inspection on a Beech tree at their address which has multiple bodies of the decay fungus *Meripilus giganteus* present at the base of the tree
- I am to provide my findings in the form of a report detailing any remedial work that may be necessary

2.0 Scope of the Report

- Trees are dynamic living organisms, and their health and condition can be subject to rapid changes, depending upon a number of internal and external factors
- The conclusions and recommendations contained within this report are based on information gained at the time of inspection and are subject to the limitations of the specialist nature of this survey
- Therefore, the likelihood of failure is considered for two years from the reports date based on the information gained on the day of the report and on the assumption that any recommended work will be undertaken in the time frame specified
- It should be noted that even completely sound, healthy trees, can fail given sufficiently severe weather conditions therefore this report is not valid in adverse or unpredictable weather conditions or for any failure due to Force Majeure
- The survey carried out relates to specific defects identified by others in the subject tree and does not constitute a full tree inspection
- The site has not been checked for any statutory constraints
- The trees were not assessed for wildlife which would include birds or bats



3.0 Results of Inspection

3.1 Tree Species and Dimensions

No.	Species	Scientific Name	H (m)	Crown Spread (m)				Age	Phys. Con.
				N	E	S	W		
T47	Common beech	<i>Fagus sylvatica</i>	21.5	8.0	9.5	10.5	10.0	M	Fair

3.2 General Description

- The tree is situated in the northwest corner of the property, close to the north and west boundary fence line and sits c.92m above sea level¹
- The immediate landscape consists of Winterpit Lane to the north and the access road to Forest Park to the west
- To the north of Winterpit Lane are residential properties with another property c.20m to the west of the tree, off Forest Park
- The wider landscape and topography consists of open farmland/fields and blocks of woodland with the tree being one of the higher spots locally
- The tree is subject to a tree preservation order - T47 of TPO/1035
- The tree has developed surface roots which merge into buttress root around the stem
- Decaying fruiting bodies of the decay fungus *Meripilus giganteus* (Giant polypore) are present within the surface roots and buttress roots on the east, southeast, southwest, west, and northwest buttress roots circled red in Photo 1 and 2 below
- Also within the surface roots on the east side of the tree is a fruiting body of *Podoscypha multizonata* (Zoned rosette) fungus fruiting body on the east side circled yellow in Photo 1 below
- The main stem forks c.2.5m into a west primary stem section and an east secondary stem section
- The union is included and appears to extend down to ground level



¹ www.calcmaps.com



3.3 Decay Evaluation

- To confirm the extent of any decay on the lower stem, the PiCUS 3 Sonic Tomography (SoT) unit and the PiCUS 2 Electrical Resistance Tomography (ERT) unit were used c.30cm above ground level (north side of the stem) with 18 measuring points (MP) – see Photo 3 below
- MP 1 was placed at north for reference purposes – please see below:

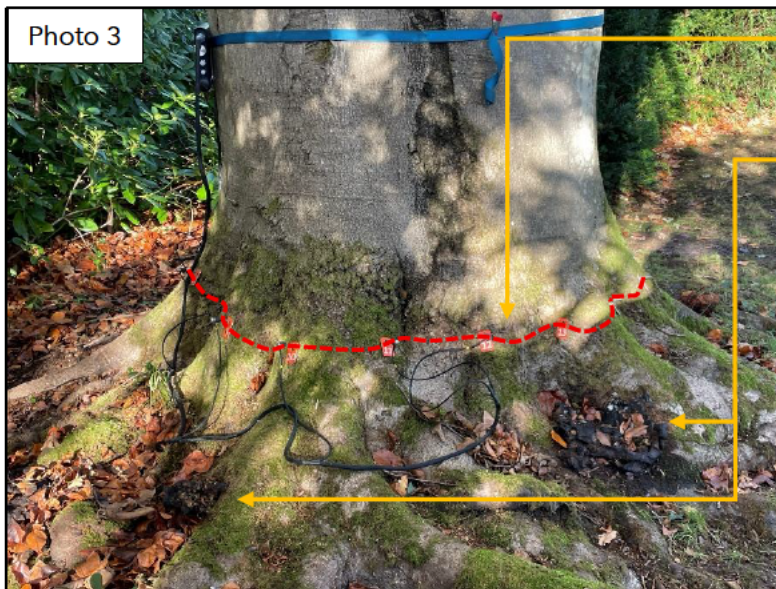
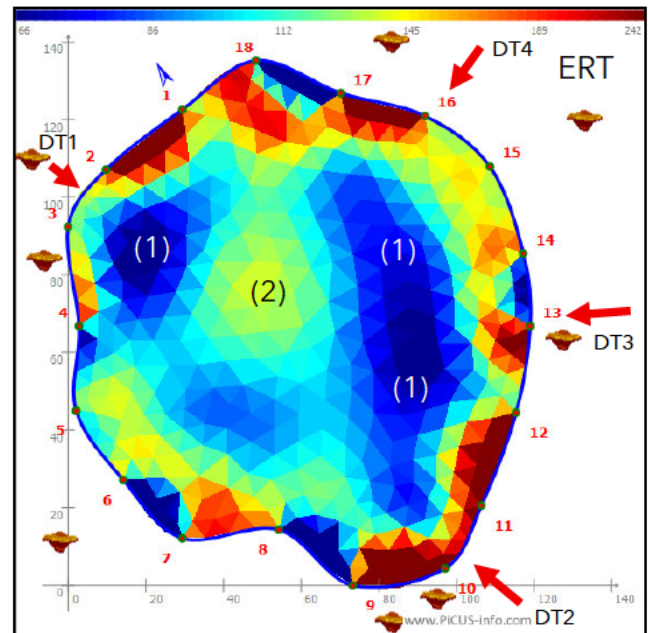
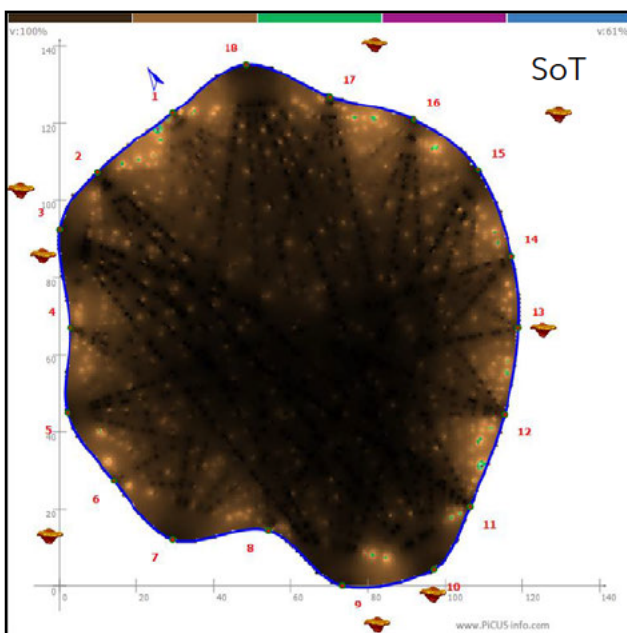


Photo 3

Height of assessment c.30cm above ground level

Note the decaying fruiting bodies of the *Meripilus giganteus* fungus

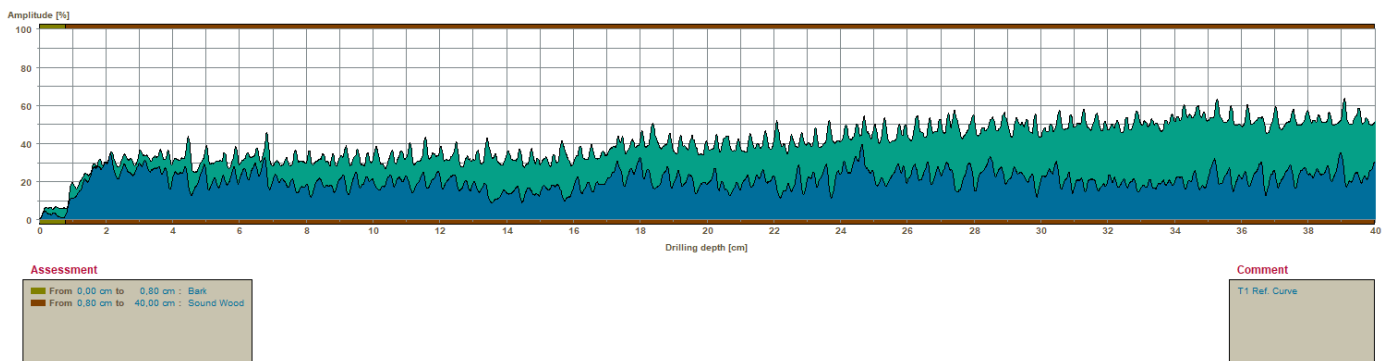
- The SoT assessment indicates an area of high sonic velocity, and as such sound wood, across the level of assessment as shown by the brown colour present



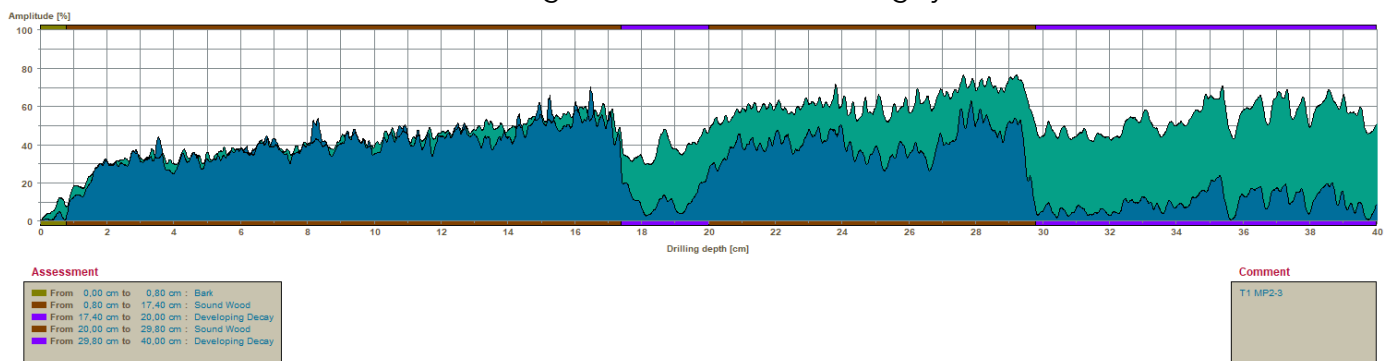


- The ERT assessment shows an area of high electrical conductivity, and as such low electrical resistance, as shown by the blue colouration adjacent to MP3 and between MP11 and MP17 (see number 1 on the tomogram)
- The faint red/yellow colour (2) shows an area of low electrical conductivity and slightly increased electrical resistance
- The red around the outer edge references the high electrical resistance and low electrical conductivity of the sound wood of the buttress areas, whilst the blue patches around the outside shows the sapwood
- To confirm the tomogram, the Resi PD400 was used in three locations, at the level of assessment - please see the red arrows on the ERT result on the previous page and the drill traces below:

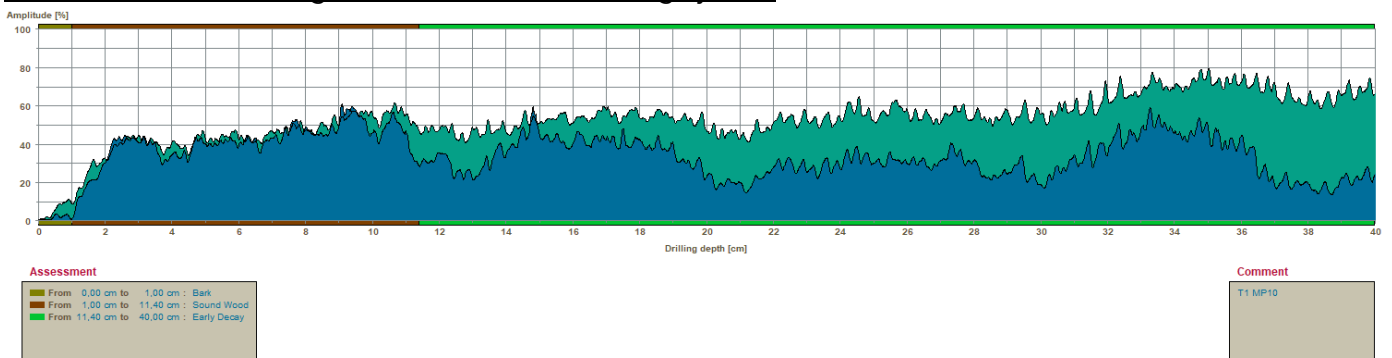
Reference Curve at c.1.3m north side of stem



Drill Trace 1 - between MP2 and MP3 angled at -30° into the rooting system

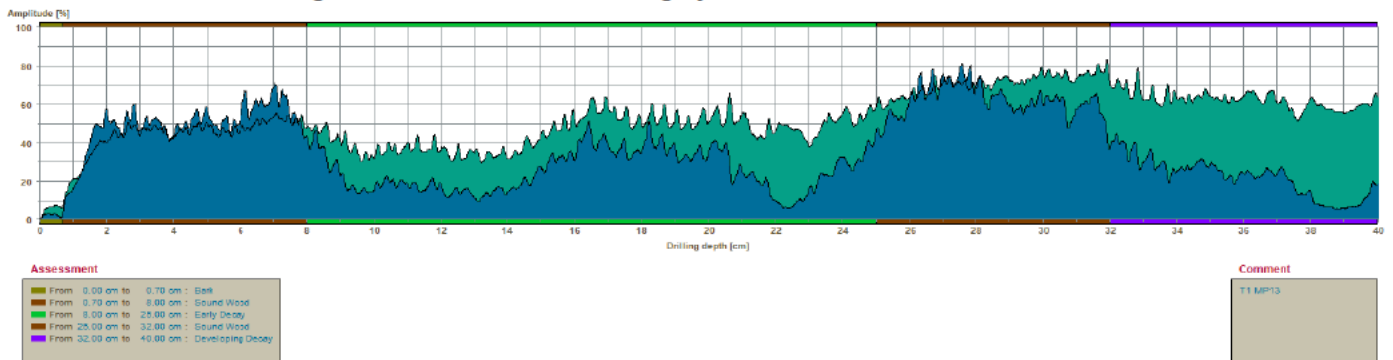


Drill Trace 2 - MP10 angled at -30° into the rooting system

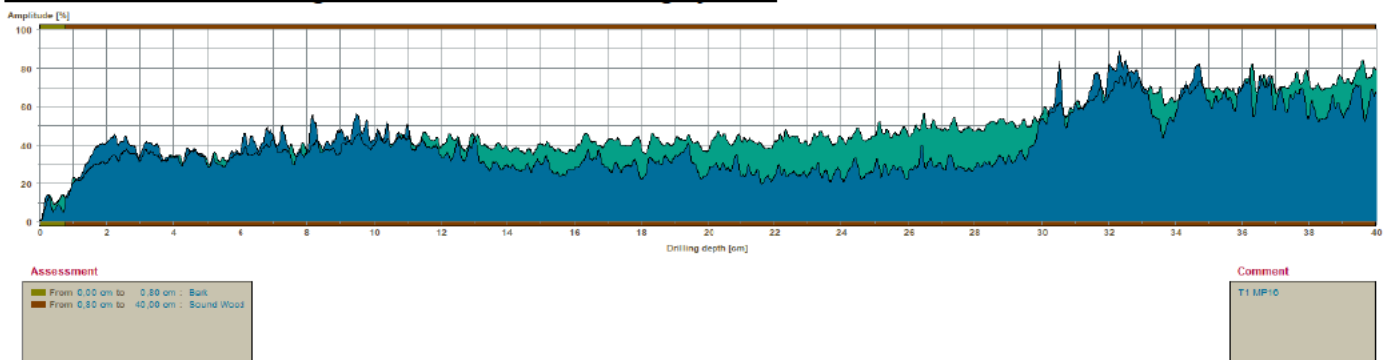




Drill Trace 3 - MP13 angled at -25° into the rooting system



Drill Trace 4 - MP16 angled at -25° into the rooting system



- To assess whether decay was manifesting itself on the underside of the roots, holes were dug to the side of four of the buttress roots and three further drill assessments performed

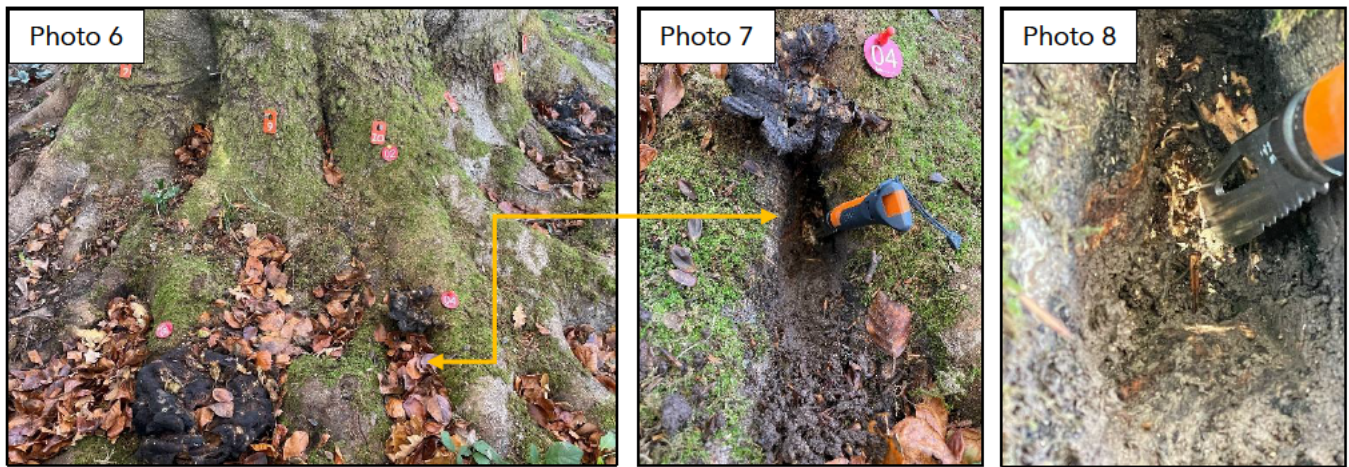
Buttress Root North - fungal fruiting body beneath MP2 and MP3



- The exposed roots appeared hard with no deterioration of the wood structure visible
- See Drill Trace 1 which was performed slightly above the excavated area

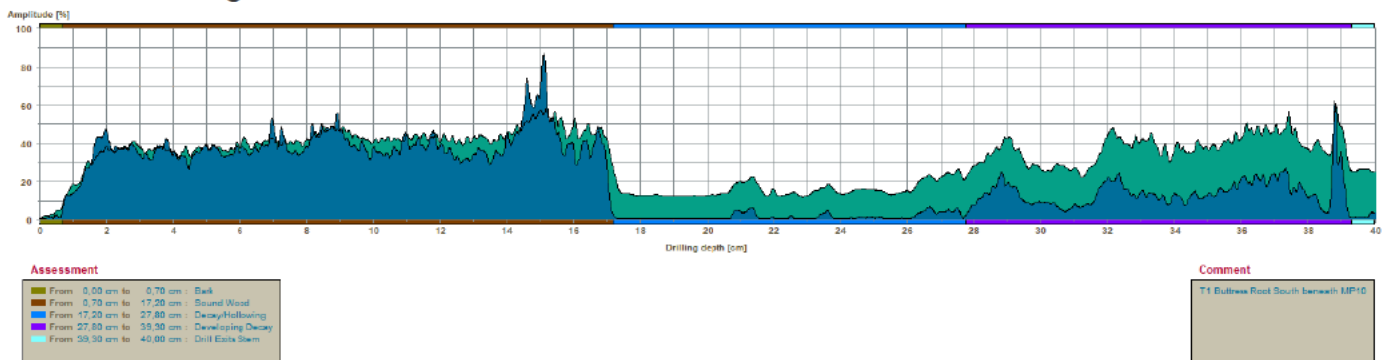


Buttress Root South - fungal fruiting body beneath MP10



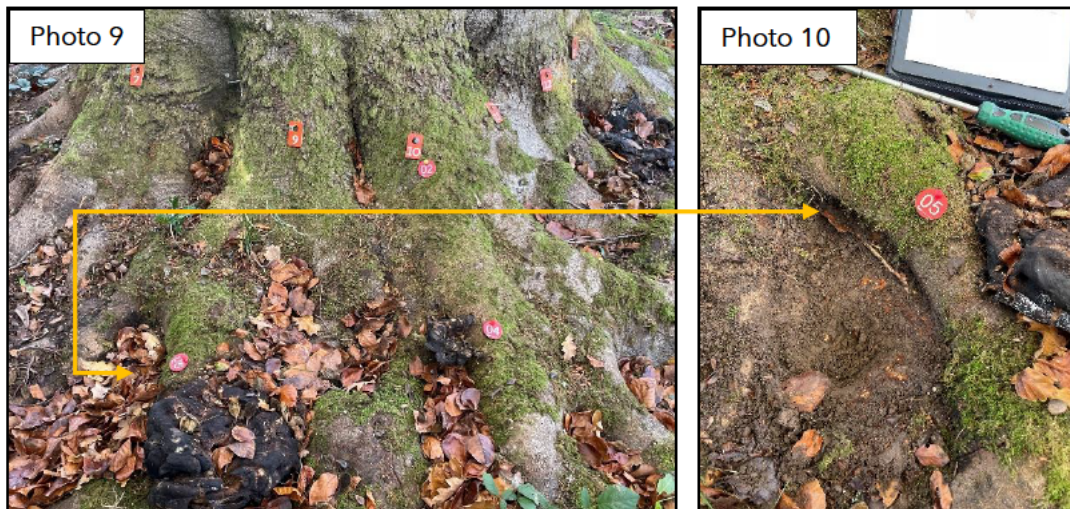
- Soft wood was found to the side of the buttress root suggesting possible decay - see Photo 8 above

Drill Trace 5 - angled at -30° into the buttress root



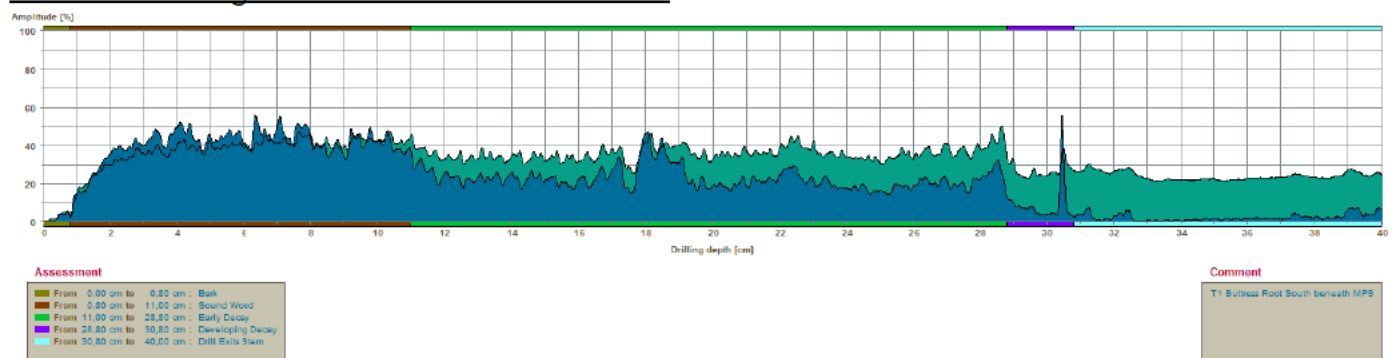


Buttress Root South - fungal fruiting body beneath MP9



- The exposed roots appeared hard with no deterioration of the wood structure visible

Drill Trace 6 - angled at -40° into the buttress root



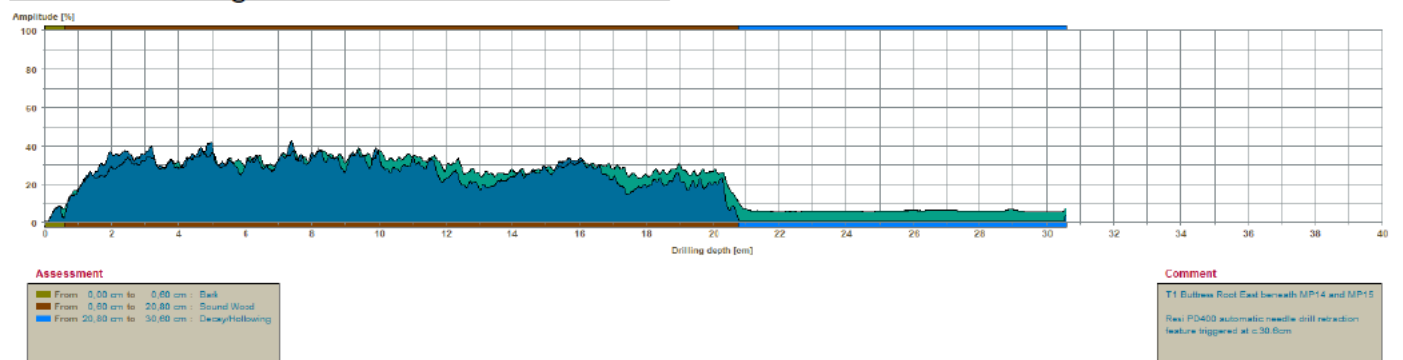


Buttress Root East - fungal fruiting body beneath MP14 and MP15



- Soft wood was found to the side of the buttress root suggesting possible decay - see Photo 14 above

Drill Trace 7 - angled at -40° into the buttress root





4.0 Summary of Results

- The decay fungus *Meripilus giganteus* (Giant polypore) causes a white rot² to form on the underside of the structural roots, root crown³ and lower stem area. During its early colonisation, the fungus can also form a "soft rot"⁴
- The fungus also has the ability to degrade the pectin, the substance that binds or glues the cells together within the wood fibres
- The resulting decayed wood becomes brittle and liable to fracture both longitudinally and across the grain which makes the tree prone to failure
- Little is known about the colonisation mode of *Podoscyphus multizonata* (Zoned rosette) fungus with references suggesting it can either act parasitically on live roots or saprotrophically on dead roots
- Whatever its mode, its presence suggests the roots within the immediate area of the fruiting body are either dead or dying
- The PiCUS 3 Sonic Tomography (SoT) unit works by timing how long it takes for sound waves from one measuring point to reach the other measuring points; the resultant tomogram is an interpretation of those times
- The assessment is across the plane only as the sound waves cannot move up or down the stem
- The PiCUS 2 Electrical Resistance Tomography (ERT) unit produces an electrical current to assess the condition of the wood within the tree
- Changes in the water content, cell composition and chemical elements will change according to the condition of the wood and unlike the SoT unit, it can assess the wood quality above and below the assessment plane, by approximately half the diameter of the stem
- The Resi PD400 microdrill uses a 3mm wide flat head needle drill bit on a 1.5mm diameter shaft to pass through the wood of a tree where the resistance of the needle drill is measured
- When the needle drill passes through sound wood the drill trace will echo its passage, and the graph produced will be a mirror image of the internal wood structure
- When the needle drill enters wood of reducing quality, the drill trace will show this as dips and troughs along the graph's length, matching the depth/point where the wood showed the reduced quality
- The SoT results shows sound wood across the assessed plane as shown by the brown colouration
- However, the ERT result shows that beneath the assessment level, decay is beginning to establish, as evidenced by the blue colouration (1) along the east and northwest side of the stem
- The faint yellow/red area (2) on the tomogram shows that the central area of the root crown is beginning to become degraded as this area is typically only red on Common beech trees
- This was confirmed by Drill Traces 1, 2 and 3 which all show the quality of the wood is beginning to wane after initially showing a good depth of sound wood. Drill Trace 4 shows sound wood is present along the entire 40cm assessment length
- Drill Traces 5, 6 and 7 shows varying stages of decay on the underside of the root assessed

² White Rot – cellulose, hemicellulose and lignin broken down

³ Root Crown/Root Flare – the upper part of the rooting system at which point the stem arises

⁴ Soft Rot – cellulose is degraded, and wood becomes embrittled



- Care must be taken when reading these drill traces as the depth of the root is unknown and the areas identified as decay, established or otherwise, may actually be the drill exiting the underside of the root

5.0 Conclusion

- The Arboricultural Association's publication 'Fungi on Trees - a photographic reference', states that *Meripilus giganteus* is infrequently associated with failure
- However, there are occasions when beech trees with the fungus do fail
- It also states that *Podoscypha multizonata* is not known to cause failure of trees
- The ERT result and six of the seven drill trace assessments show that decay, at varying stages, is present below ground level on the buttress roots and root crown, and it must be considered that over time this will continue to develop
- In the event the tree were to fail, due to the crown bias being predominantly in a south-west direction and given the neighbouring tree to the north, I would suggest it would fall towards the access drive for Forest Park
- To lessen the tree's sail effect, the tree should be reduced by shortening the longest apical and lateral branch lengths by up to c.3m to establish a smaller crown
- This should be undertaken within six months of the report's date
- Care must be taken however as this will remove essential leaf bearing material and as such affect the tree's ability to photosynthesis which in turn will impact on its energy reserves. This could make matters worse by allowing the fungus to establish itself further within the rooting system as the tree compartmentalises the pruning wounds generated
- The other course of action is to fell the tree which would obviously solve the problem but would leave a big hole within the garden's treescape
- If the tree is retained, I recommend that it is reassessed within two years of the report's date

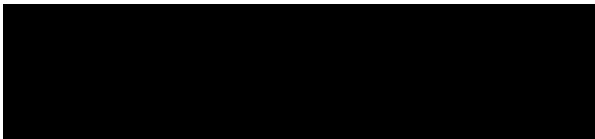


6.0 Recommendations

- Implement the tree work in the time period specified
- Reassess in two years of the report's dates
- This time frame should be shortened in the event:
 - The tree's local environment changes significantly
 - Fruiting bodies emerge from anywhere on the tree
 - After extreme weather events such as:
 - Wind gusts in excess of Force 8 on the Beaufort Scale - see Appendix 3
 - After named extreme weather events
- A formal application to the local planning authority will be required and written consent obtained prior to any work being carried out

This concludes my report.

Yours sincerely



Andrew Gale *MICFor Dip Arb L6 (ABC) M.Arbor.A*

 Institute of
Chartered Foresters
Registered Consultant

 Arboricultural
ASSOCIATION
Professional Member

Date: 1st December 2025



7.0 Appendix 1

Method of Inspection Visual Tree assessment - VTA

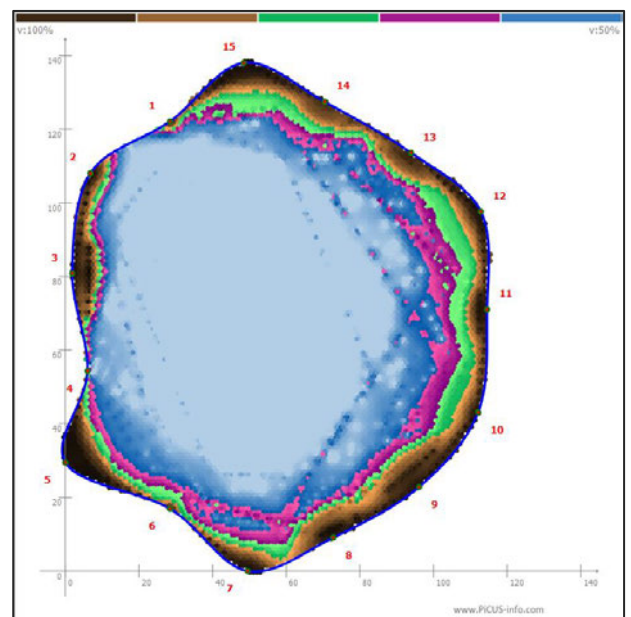
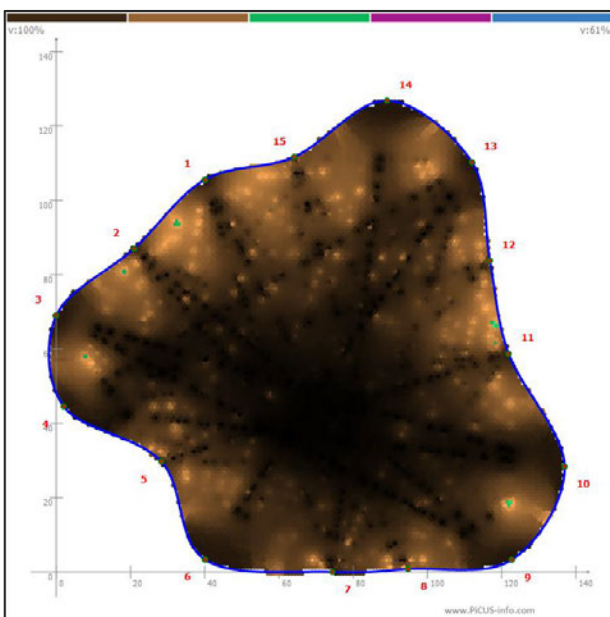
- A nylon headed mallet is used to sound the stem as an initial indication of the presence of decay
- Dull tones indicate areas of lifted and moribund bark, and areas where decay is forming within the main body of the stem
- A thin steel rod is used, where necessary, to assess the depth of any decay in cavities and concavities between buttress roots

Internal Tree Inspection

- PiCUS 3 Sonic Tomography (SoT) unit uses the relative velocity of sound waves induced across the stem to produce a colour shift image where dark browns represent wood with higher velocities and as such sound wood
- Lower sound speeds caused by decay or hollowing are represented by lighter colours with blue/white indicating significant decay/hollowing
- A representation of the colour differences between sound wood and decaying wood

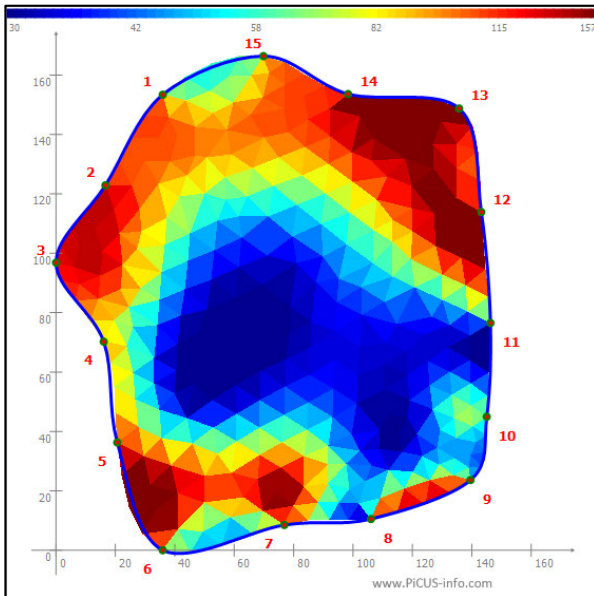
HIGH VELOCITY LOW VELOCITY
 Indicating
 SOUND WOOD DECAYED AND HOLLOWING WOOD

- On the examples below, the tomogram on the left indicates a sound tree and the tomogram on the right, a tree with significant decay or hollowing:



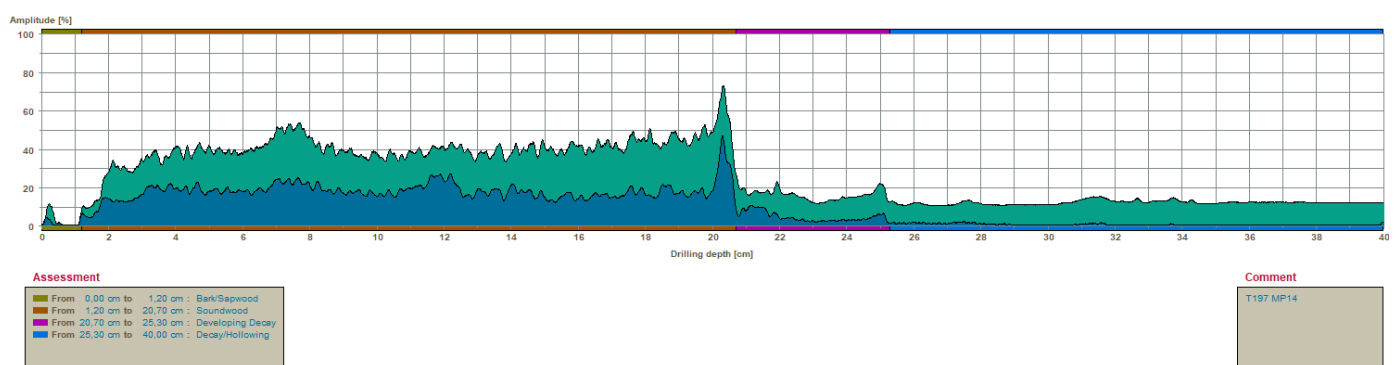


- A further assessment using the PiCUS 2 Electrical Resistance Tomography unit (ERT) can be used



- The PiCUS 2 ERT unit produces an electrical current to assess the condition of the wood within the tree. Changes in the water content, cell composition and chemical elements will change according to the condition of the wood – see to the left
- The blue colouration in the tomogram indicates an area of high conductivity suggesting advancing decay
- The ERT system can test below the assessed plane which helps with the early diagnosis of changes to the wood structure

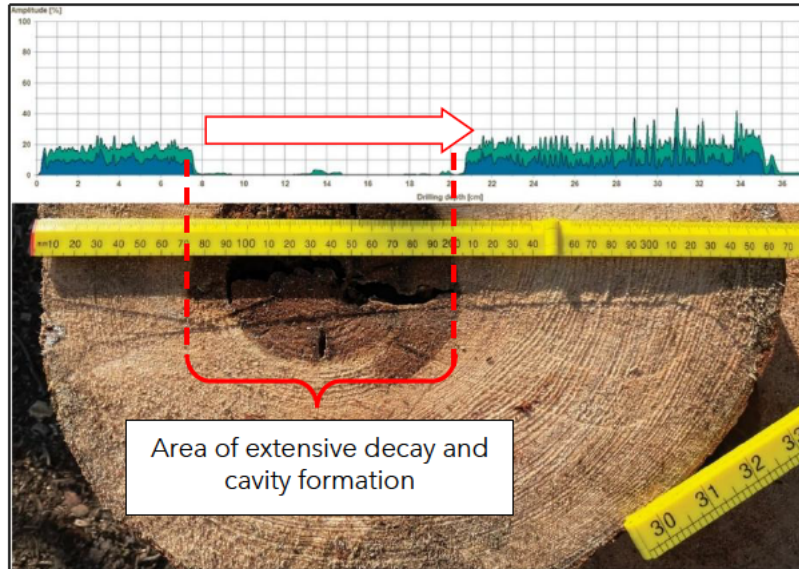
- An IML Resi PD400 microdrill, which measures the resistance of a very fine drill bit to a depth of 400mm, can be used for further confirmation. Significant drops in drilling resistance are indicative of decay or hollowing
- On the example below, sound wood is present to a depth of c.20.7cm before the needle drill enters an area of developing decay; at c.25.3cm the needle drill enters a cavity which extends to the end of the assessment
- Please note, the colours of the Resi Drill Traces have been colour-coded to match those of the PiCUS 3 Sonic Tomography unit



- Historically, Resi drill traces have read from right-to-left due to the configuration of the original machine. However, by using the software available, I have flipped the drill traces to read left-to-right, the more conventional way to read a graph



- On the image below, you can see where the drill entered the area of extensive decay and cavity at c.7.5cm and re-entered the sound wood at c.20.8cm; the drill exited the stem at c.35.4cm





Appendix 2

Survey Key

Tree No.	Relating the tree being assessed	
Species	Common name in English	
Scientific name	The current scientific name will be used	
Height	Measured using a TruPulse digital clinometer and shown in metres (m)	
Crown Spread	Measured using a TruPulse digital clinometer and shown in metres (m)	
Age Class	Young [Y]	recently planted or established within the last 5 years
	Semi Mature [SM]	a well-established youngish tree but far from full maturity
	Early Mature [EM]	long established nearing its full size but not fully mature
	Mature [M]	fully mature tree that has met its full size
	Late Mature [LM]	a fully mature tree that has passed its peak; may exhibit areas of decline
	Veteran [V]	a tree with the physical characteristics of an Ancient tree but is not ancient in years compared to other trees of the same species
	Ancient [A]	a tree that has past full maturity and is old or aged in comparison to other trees of the same species
Physiological Condition	GOOD	No significant physiological problems
	FAIR	Some physiological problems
	POOR	Significant physiological problems
	MORIBUND	In a serious and irreversible decline
	DEAD	Not alive
Tree Structure	Main Stem	The stem, from ground level up to the point at which it bifurcates
	Primary Stem Section (PSS)	The larger stem sections that emanate from the main stem after bifurcation; form the main crown structure
	Secondary Stem Section (SSS)	The stem sections that emanate from the primary stem sections that contribute to the inner crown structure
	Tertiary Stem Section (TSS)	The stem sections that emanate from the secondary stem sections that contribute to the inner and outer crown structure
	Subordinate Branch Structure (SBS)	The smaller diameter branches that help form the inner and outer branch structure; leaf bearing twigs emanate from these to form the crown



Appendix 3

Beaufort Scale

Beaufort Number	Name	Knots	MPH	Effects Observed on Land
0	Calm	Under 1	Under 1	Calm, smoke rises vertically
1	Light Air	1-3	1-3	Direction of wind is shown by smoke drift but not by wind vanes
2	Light Breeze	4-6	4-7	Wind felt on face, leaves rustle, ordinary wind vane moved by wind
3	Gentle Breeze	7-10	8-12	Leaves and small twigs in constant motion, wind extends light flag
4	Moderate Breeze	11-16	13-18	Raises dust and loose paper, small branches are moved
5	Fresh Breeze	17-21	19-24	Small trees in leaf begin to sway, crested wavelets in inland waters
6	Strong Breeze	22-27	25-31	Large branches in motion, whistling heard in telegraph wires, umbrellas used with difficulty
7	Near Gale	28-33	32-38	Whole trees in motion, inconvenience felt in walking against the wind
8	Gale	34-40	39-46	Breaks twigs off trees, generally impedes progress
9	Strong Gale	41-47	47-54	Slight structural damage occurs - chimney pots, slates removed
10	Storm	48-55	55-63	Seldom experienced inland, trees uprooted, considerable structural damage occurs
11	Violent Storm	56-63	64-72	Very rarely experienced, accompanied by widespread damage
12	Hurricane	64 and over	73 and over	