

**HALLWOOD**

ASSOCIATES

ARBORICULTURAL AND WOODLAND CONSULTANTS

**TITLE: Advanced Arboricultural  
Assessment:**

*1no. False Acacia at 98 Priory Road,  
London, NW6 3NT.*

**DATE:** 17<sup>th</sup> May 2021

**PREPARED BY:** Dominic Poston

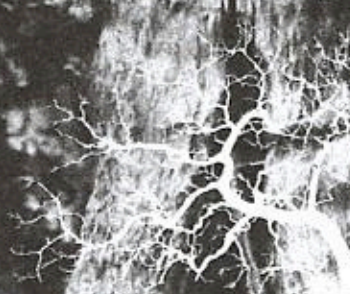
**REF:** HWA10154.01



Institute of  
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## **(Level 3) ADVANCED ARBORICULTURAL ASSESSMENT:**

**1No. False Acacia at 98 Priory  
Road, London, NW6 3NT**

**HWA10154.01  
17/05/2021**

**Prepared For  
Samantha Swithenbank**

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**Prepared By  
Hallwood Associates Ltd**

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### **Report version control:**

<b>Version</b>	<b>Date</b>	<b>Author</b>	<b>Change description</b>
<b>1.0</b>	<b>17/05/2021</b>	<b>Dominic Poston</b>	<b>First Issue</b>

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## 1.0 INSTRUCTIONS / SCOPE

- 1.1 Hallwood Associates (HWA) have been engaged by Samantha Swithenbank to carry out an advanced arboricultural assessment to determine the structural integrity of 1No. mature false acacia at 98 Priory Road, NW6 3NT.
- 1.2 Sonic Tomography was utilised in order to identify and measure the level of any internal decay not immediately evident to the naked eye.
- 1.3 Details pertaining to individual tests and relevant comments are contained in Appendix A of this report.
- 1.4 Appendix B contains a Google earth extract showing approximate tree location.
- 1.5 Appendix C contains colour photographs.

## 2.0 AUTHORSHIP

- 2.1 I am a chartered arboriculturist and chartered environmentalist. I hold the Royal Forestry Society's Professional Diploma in Arboriculture, am a fellow member of the Arboricultural Association and a registered consultant with the Institute of Chartered Foresters. The findings in this report are reached through site observations and conclusions are made in light of my experience. Details are available upon request or at [www.hallwoodassociates.com](http://www.hallwoodassociates.com).

## 3.0 REPORT LIMITATIONS

- 3.1 The statements made in this report do not take account of the effects of extremes of climate, vandalism or accident whether physical, chemical or fire. The author cannot therefore accept liability in connection with these factors, nor where prescribed work is not carried out in accordance with current industry best practice. The authority of this report ceases at any stated time within it, or if not stated after 12 months from the date of the survey or when any site conditions change, or pruning or other works unspecified in the report are carried out to, or affecting the subject tree(s), whichever is the sooner.
- 3.2 Unless otherwise specified, no checks have been carried out in respect of statutory controls that may apply, e.g. Tree Preservation Orders, Conservation Areas or planning conditions. In addition, prior to undertaking any tree works, it is necessary to ensure due diligence is followed in respect of protected species and habitats.
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#### 4.0 METHODOLOGY

- 4.1 The site was visited on 11/05/2021 when the conditions were clear and bright.
- 4.2 As per the instruction, the identified tree was subject to an impulse Tomography test.
- 4.3 This report includes interpretation of the Tomography results and recommendations based on the findings of this and the climbed inspection.
- 4.4 The ARBOTOM® is an impulse tomograph developed for assessment of the interior state of trees. It is based on the principle of stress wave timing. Impulse velocities within the wood are highly correlated with the density of the material and can therefore be used to gather information on its quality. Dense wood transmits stress waves better than wood that is damaged by decay or cracks. The system works by placing sensors toward the base of the tree. Each sensor is tapped in turn. This sends out an impulse signal received by all other sensors. The speed at which the impulse signal travels to each sensor is cross correlated to create a tomogram representing those areas of wood which are damaged or decayed.



## 5.0 THE SURVEY

Tree Location	98 Priory Road, NW6 3NT (front garden)
Tree identifier	T1
Survey date	11 <sup>th</sup> May 2021
Surveyor(s)	Dominic Poston Prof Dip (RFS), BSc, HND, FArborA, CEnv, MICFor
<b>Survey</b>	
Age class	Veteran
Tree Height	Approximately 12m
Average crown spread (radius)	5m
Trunk diameter at 1.5m	130cm
<b>Observations</b>	
<ul style="list-style-type: none"> <li>Following previous (2018) survey and report, a crown reduction has been undertaken.</li> <li>Visual inspection of the western half of the lower stem is impeded by the existing boundary wall.</li> <li>Bark necrosis and sapwood decay is evident from near ground level to approximately 1.2m on the eastern half of the stem.</li> <li>The stem leans to the north and is within falling distance of the public footpath and highway.</li> <li>Vigour appears reduced with crown epicormic growth evident and a lower than usual bud distribution.</li> <li>Minor deadwood and dieback is evident throughout.</li> </ul>	

## 6.0 CONCLUSIONS

- 6.1 T1 is a veteran tree with significant cultural, amenity and environmental value located in a prominent location.
- 6.2 T1 is located in a high-risk zone, within falling distance of a high occupancy area (public highway and footpath).
- 6.3 Sonic tomography indicates a 36% strength loss at the level of the top of the wall (approximately 1.2m), which is significant.
- 6.4 Recent crown reduction works will have reduced the likelihood of catastrophic failure due to wind load and/or storm events, however given the level of decay and its location, it is considered that an unacceptable risk still exists.

## 7.0 RECOMMENDATIONS

- 7.1 The contractor should carry out all tree works to BS 3998 *Recommendations for Tree Work* (2010) and as modified by more recent research.

The following table details two options for management to mitigate the identified risk of failure:

Tree number	Species	Recommended works in relation to Structural condition	Time scale
T1	False Acacia (Robinia Pseudoacacia)	<b>OPTION 1</b> Fell to at or near ground level, grind out resultant stump and plant a replacement.	Within 12 months
		<b>OPTION 2</b> Undertake heavy reduction (to extent shown on Photo 3, Appendix C) and maintain at reduced dimensions by pruning to at or near previous pruning points every third year.	Within 3 months
		Undertake repeat tomograph test in 24 months time to measure extent of decay.	May 2023

- 7.2 Written records of formal inspections, reports of tree failures or near misses and a history of tree work should be kept in a safe place for future reference. Further advice can be found at the National tree Safety Group's website <http://ntsgroup.org.uk/>



# APPENDICES

APPENDIX A – Tomograph Images

APPENDIX B – Site Plan

APPENDIX C - Photographs

## Appendix A

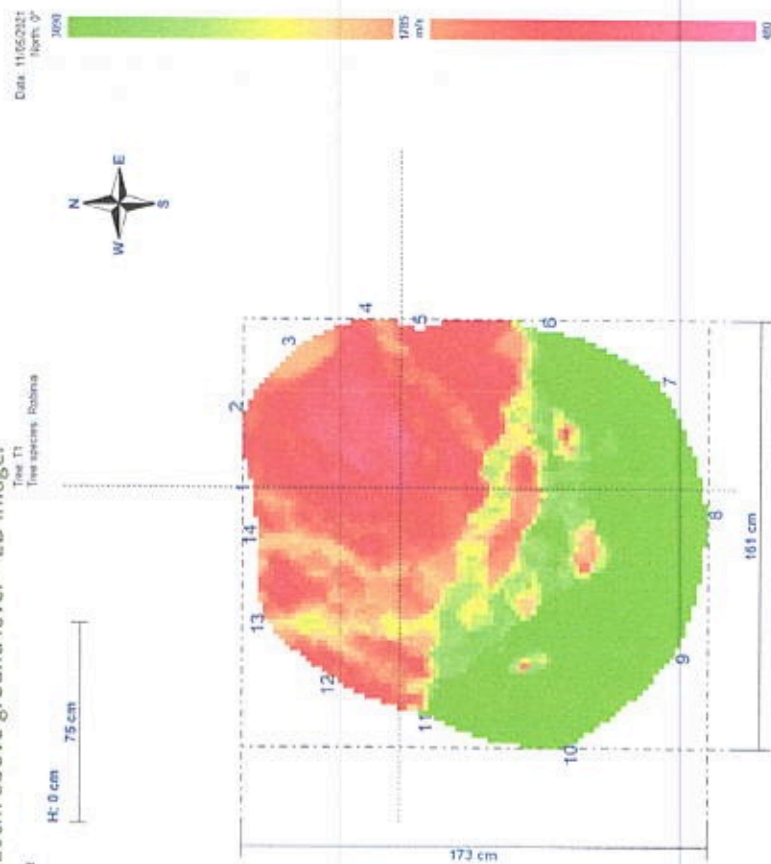
### TOMOGRAPH IMAGES

*The Stress-wave ('impulse') tomogram of the stem identifies decayed or compromised wood as areas in purple/red; those areas with strong and intact wood structure are identified in green and partially damaged wood in yellow and orange colours.*



## T1 – False Acacia

Impulse tomography test of stem at 120cm above ground level – 2D image.

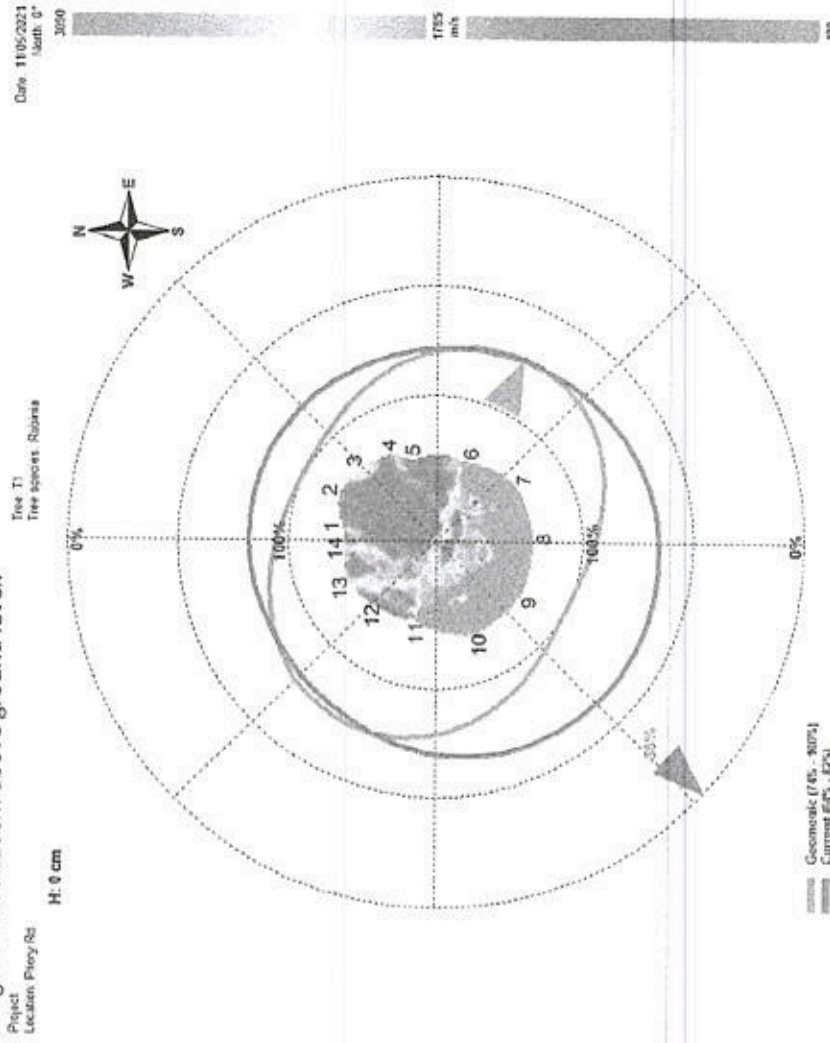


Impulse tomography indicates a large volume of decay altered wood in the northern half of the stem.



## T1 - False Acacia

Calculated Mechanical Strength Loss at 120cm above ground level.



The calculated mechanical strength loss resulting from the anticipated decay at 120cm above ground level is 36%; which is significant.





## Appendix B

### Site Plan



Image courtesy of Google and indicating T1 circled in yellow.



## Appendix C

### Photographs



Photo 1: Showing tree in entirety from North western aspect.



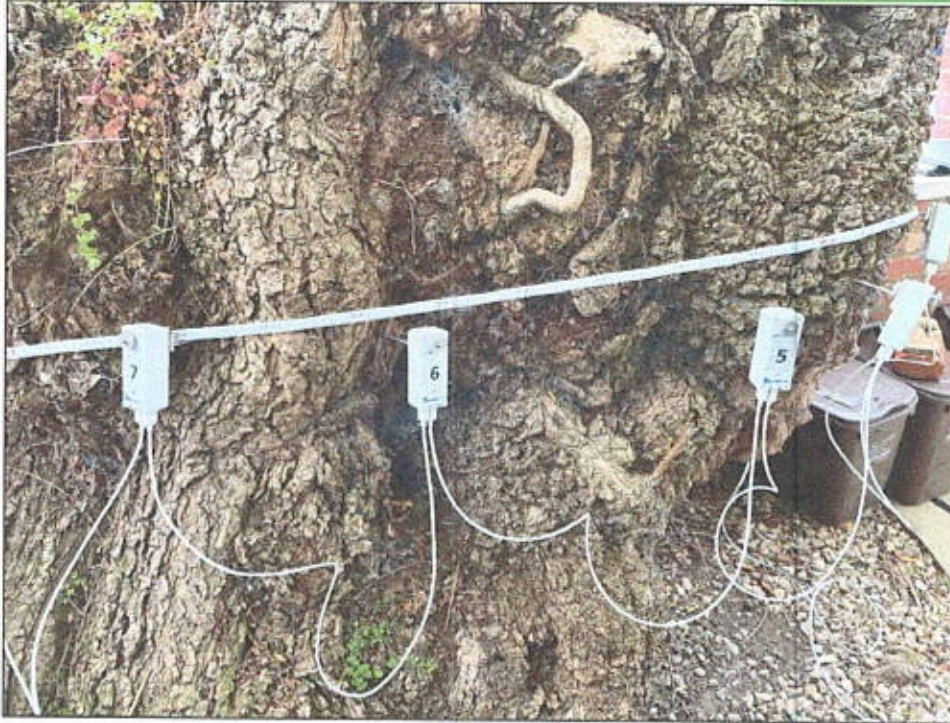


Photo 2: Showing area of necrosis (note adventitious rooting)



Photo 3: Edited to show potential pruning points to reduce likelihood of failure.