



# Gale Tree Consultancy

## Tree Condition Report

New Grove Petworth

September 2021

Ref: TCR/292/21

Contents		Page Number
	Summary	3
1.0	<u>Introduction</u>	4
2.0	<u>Scope of the Report</u>	5
3.0	<u>Results of Inspection</u>	6
4.0	<u>Summary of Results</u>	11
5.0	<u>Recommendations</u>	12
6.0	<u>Appendices</u>	
	Appendix 1 Survey Key	13

## Summary

Mature Common lime with cavities at its base and at c.2.3m height

Extensive decay and hollowing is present with the two cavities appearing to coalesce

A significant reduction in height has been recommended to abate the risk of failure onto adjacent boundary wall

This work should be undertaken within 6 months, ideally before the start of the nesting season in March 2022

## 1.0 Introduction

### 1.1 Client and Address

Mr & Mrs Bartlett, New Grove, Grove Street, PETWORTH, GU28 0BD

### 1.2 Site Address if Different from the Above

As above

### 1.3 Date of Inspection

1<sup>st</sup> September 2021

### 1.4 Name of Inspector

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

### 1.5 Our Reference

TCR/292/21

### 1.6 Instructions Received

I have been instructed by the client to undertake a ground level decay evaluation of a tree following the removal of basal growth that restricted a thorough assessment of the tree during a walk over inspection of the site

I am to provide my findings in the form of a report detailing any remedial work that may be necessary

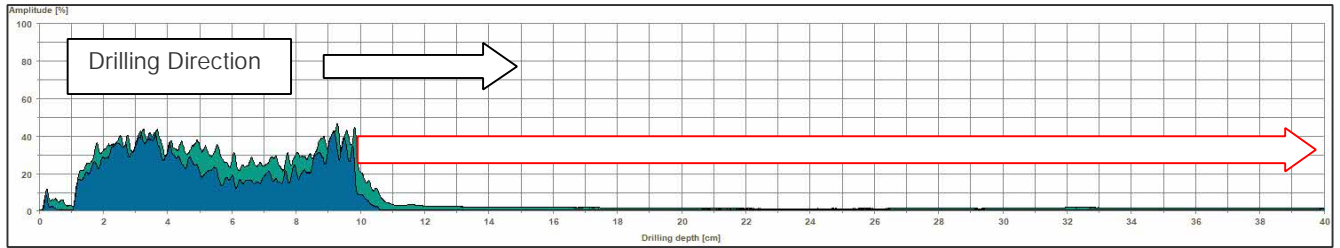
### 1.7 Method of Inspection

A plastic headed mallet was used to sound the stem as an initial indication of the presence of decay

A thin steel rod was used, where necessary, to assess the depth of any decay in cavities and concavities between buttress roots

To further assess areas of a concern, an IML Resi PD400 microdrill, which measures the resistance of a very fine drill bit to a depth of 400mm, was used for further confirmation. Significant drops in drilling resistance are indicative of decay or hollowing

On the example overleaf, extensive decay is indicated from a depth of 10cm through to the end of the assessment



Please note, 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

## 1.8 Tree Species and Dimensions

No.	Species	Scientific Name	Height	Crown Spread				Age	Phys. Condition
				N	E	S	W		
T24/219	Common lime	<i>Tilia x europaea</i>	20	4.5	6.0	5.0	5.0	M	GOOD

## 1.9 General Description

Please see TCR/286/21 for details of the site and tree in question

## 2.0 Scope of the Report

This tree condition report relates to the ground level assessment of the tree, it does not consider any below ground issues unless stated otherwise

The report addresses issues apparent on the tree at the time of the inspection, therefore the likelihood of failure is considered for six months from the reports date based on the information gained on the day of the report

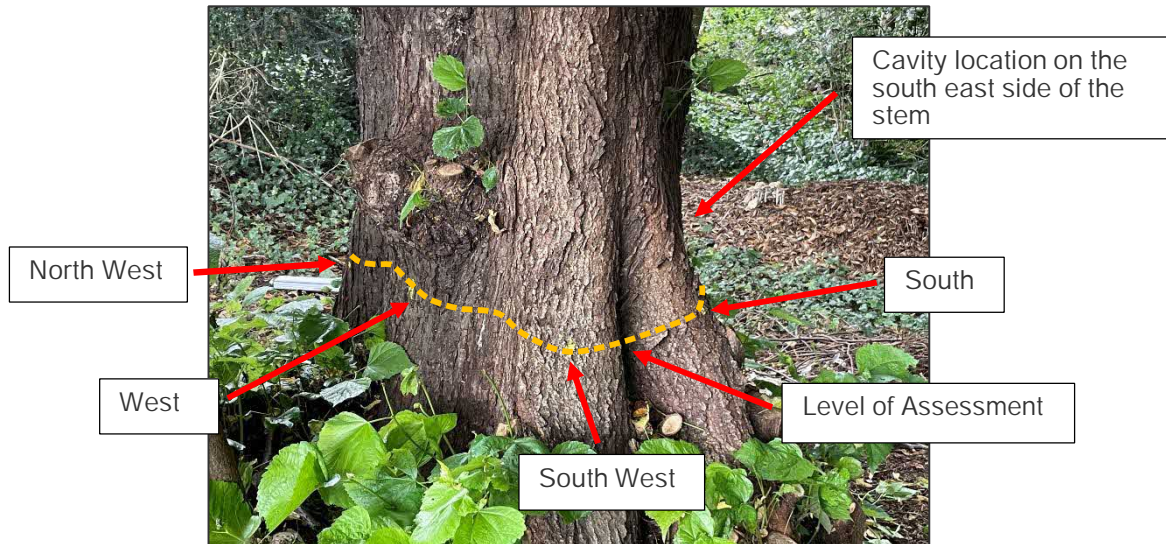
The site has not been checked for any statutory constraints

The trees were not assessed for wildlife which would include birds or bats

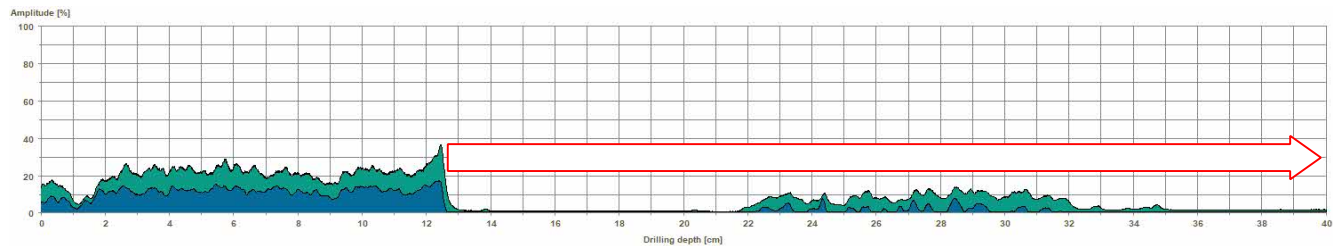
## 3.0 Results of Inspection

To confirm the extent of any decay, the Resi PD400 microdrill was used in six locations around the lower stem

The height of the assessment was 30cm above ground level where the approximate stem diameter was 92cm



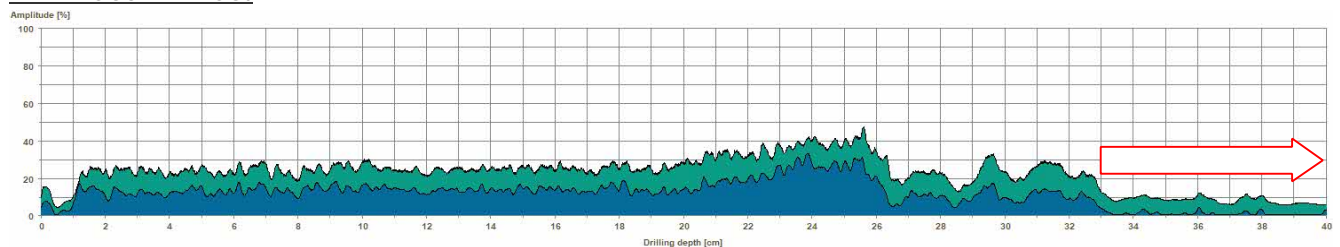
### Drill Trace 1 – North



The drill trace indicates sound wood to a depth of c.12.5cm after which the drill enters an area of extensive decay/hollowing through to the end of the 40cm assessment

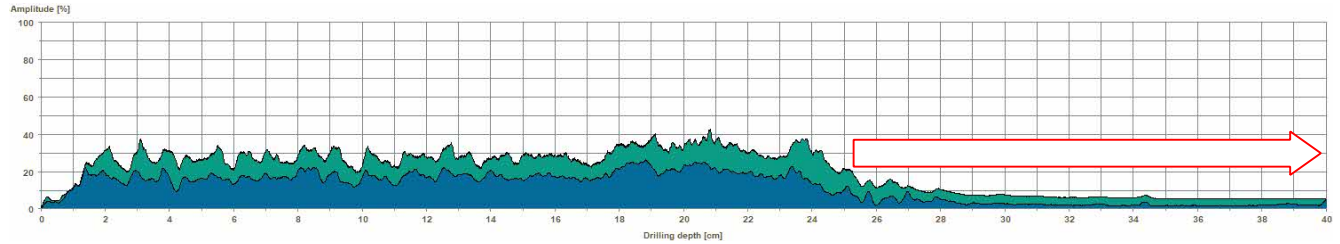
Between c.22cm and c.32cm, the drill enters an area of variable resistance which appears incipient in nature

### Drill Trace 2 – East



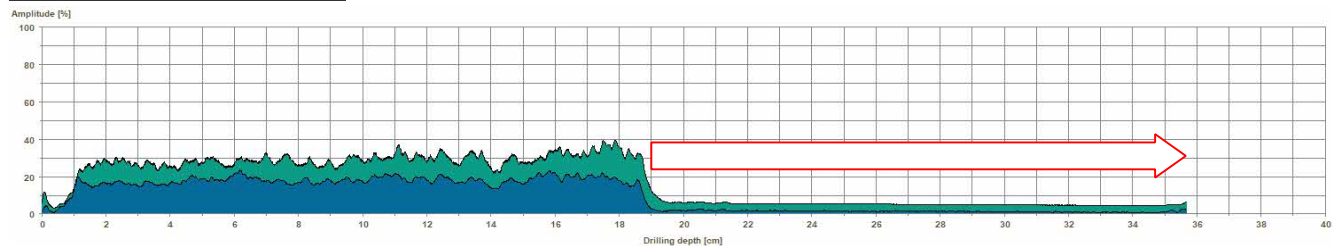
After a steady increase in resistance, the drill enters an area of incipient decay at c.33cm through to the end of the assessment

## Drill Trace 3 – South



After a steady increase in resistance, the drill enters an area of extensive decay/hollowing at c.24cm through to the end of the assessment

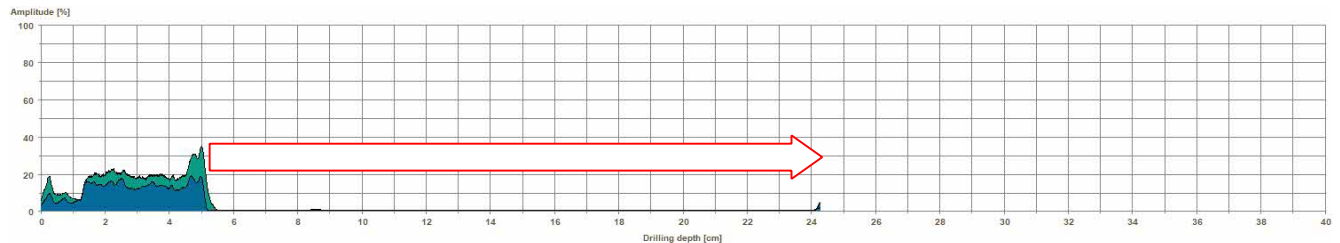
## Drill Trace 4 – South West



After a steady increase in resistance, the drill enters an area of extensive decay/hollowing at c.19cm

The Resi PD400's automatic needle retraction feature was triggered at c.35.5cm to remove the risk of damage/breakage of the drill bit

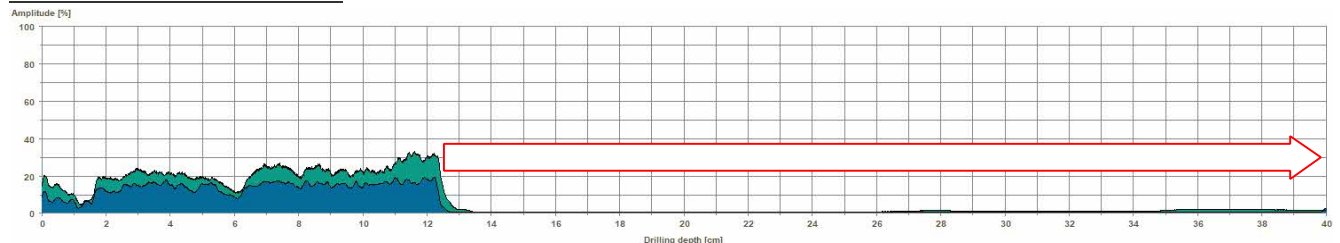
## Drill Trace 5 – West



The drill enters a hollow in the stem at c.5cm

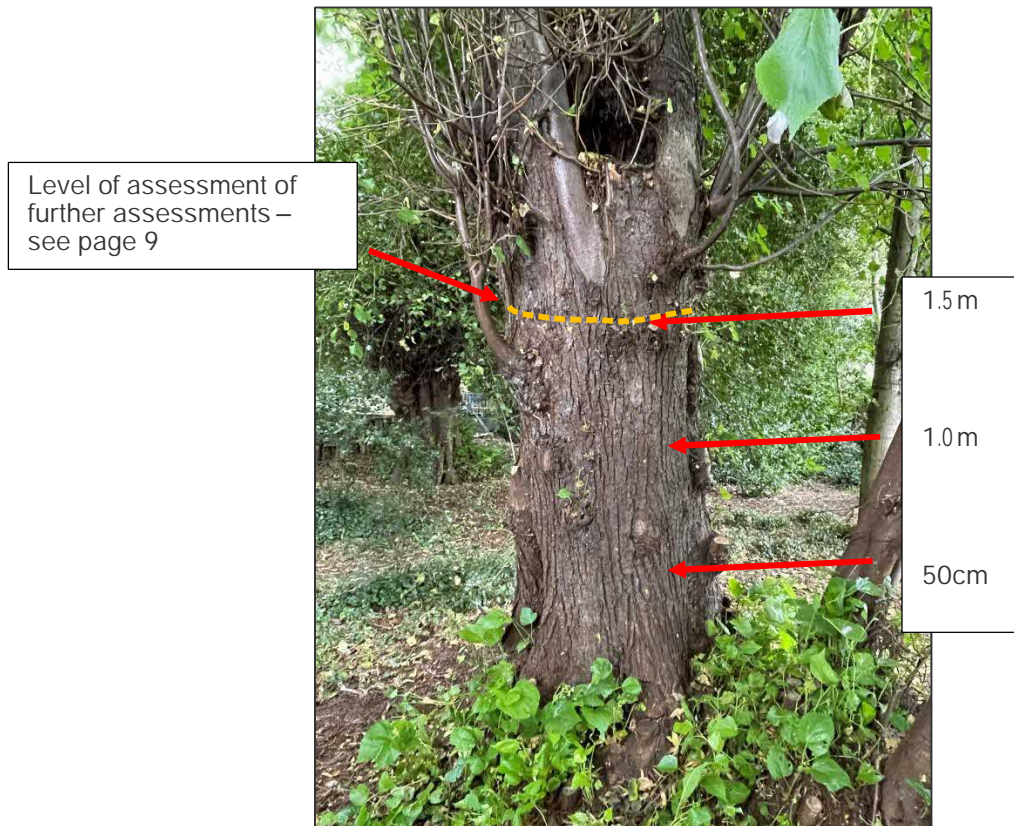
The Resi PD400's automatic needle retraction feature was triggered at c.24.5cm to remove the risk of damage/breakage of the drill bit

## Drill Trace 6 – North West

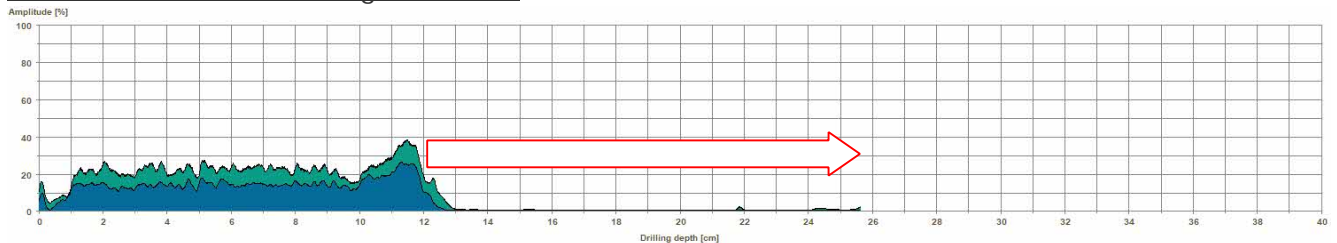


The drill trace indicates an increasing resistance to the drill up to c.12.5cm where it enters an area of hollowing in the stem

A further three assessments were undertaken on the north west side of the stem from Drill trace 6 up to the cavity at c.2.3m



## Drill Trace 7 – 50cm above ground level

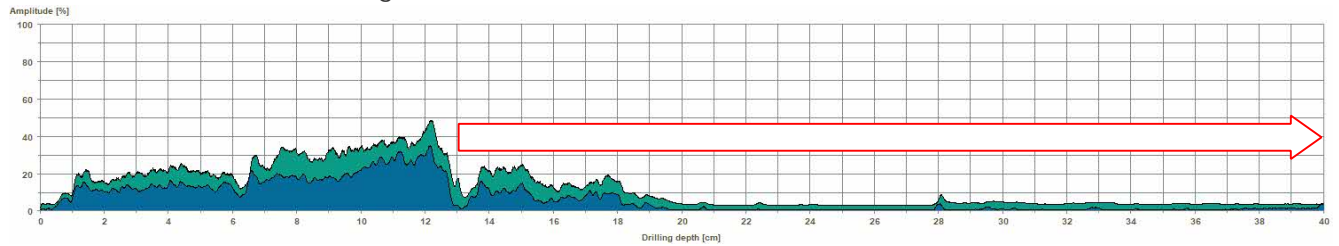


After an area of increasing resistance, the drill enters a hollow in the stem at c.12cm

The Resi PD400's automatic needle retraction feature was triggered at c.24.5cm to remove the risk of damage/breakage of the drill bit



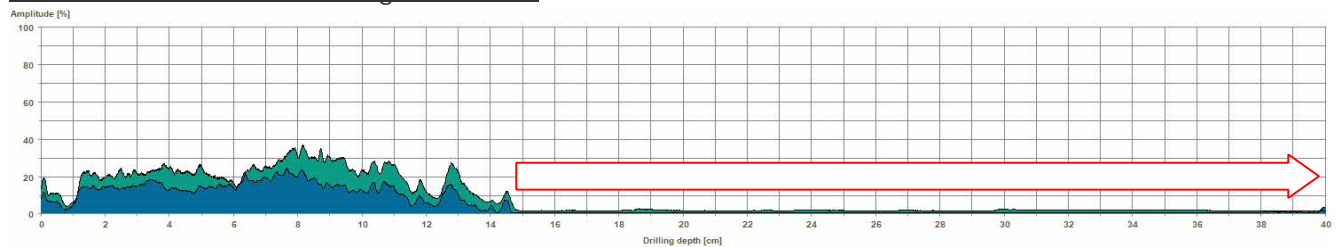
## Drill Trace 8 – 100cm above ground level



The drill trace indicates an increasing resistance to the drill to a depth of c.12cm where it drops suggesting incipient decay is forming

After a brief increase from c.14cm, the variable drill trace decreases further to an area of extensive decay/hollowing from c.20cm to the end of the assessment

## Drill Trace 9 – 150cm above ground level

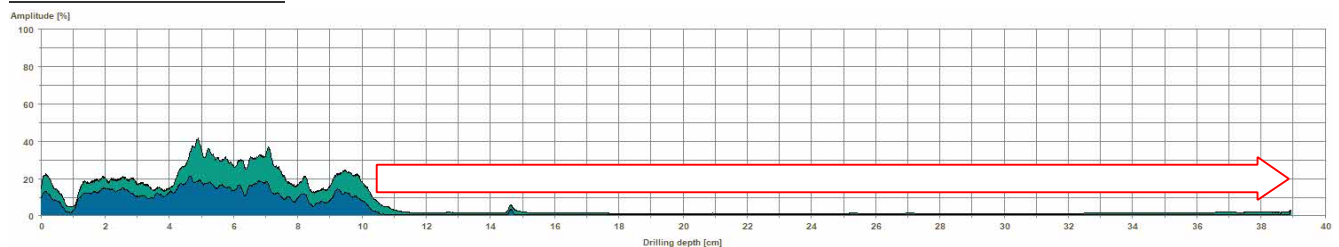


The drill trace indicates an increasing resistance to the drill up to c.8cm where it begins to decrease suggesting incipient decay is forming

From c.14cm the drill enters an area of hollowing in the stem through to the end of the assessment

To ascertain the extent of any decay around the area of cavity at c.2.3m, the Resi PD400 was used a further four times at the tree's cardinal points at a height of c.1.5m above ground level – see the annotated photo on the previous page

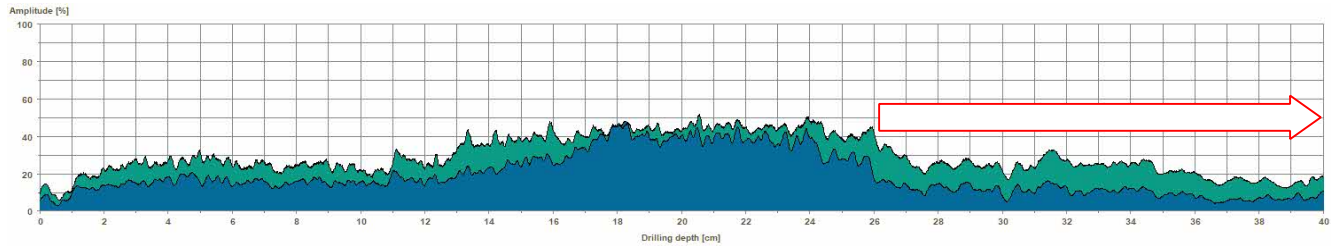
## Drill Trace 10 – North



After an area of increasing resistance, the drill enters a hollow in the stem at c.10.5cm

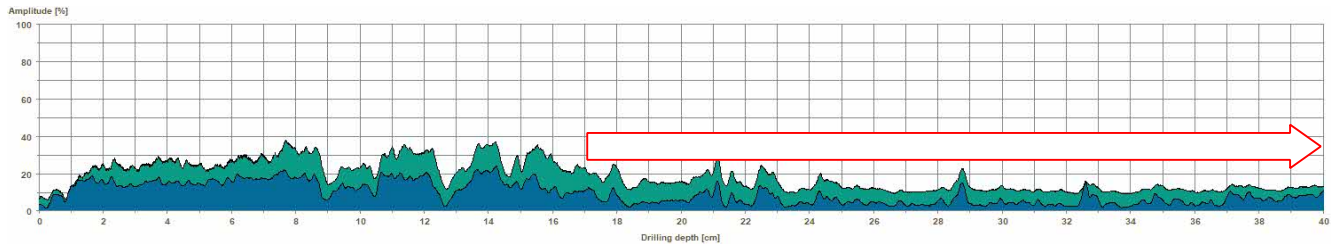
The Resi PD400's automatic needle retraction feature was triggered at c.39cm to remove the risk of damage/breakage of the drill bit

## Drill Trace 11 – East



The drill experiences an increase in resistance to a depth of c.26cm. From this point, the drill enters an area of forming incipient decay as indicated by the gradual reduction in resistance

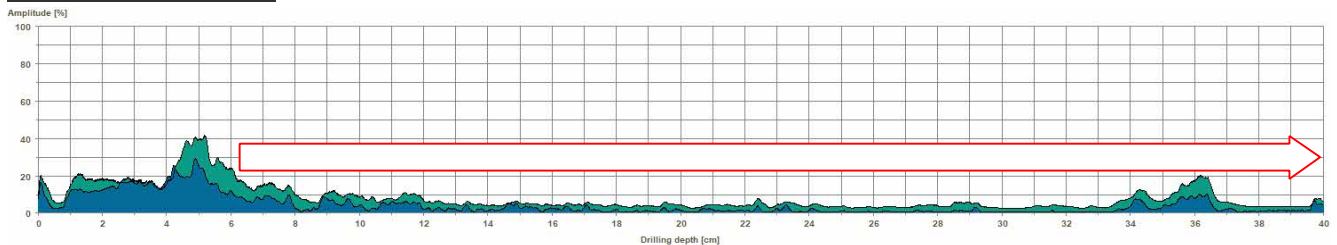
## Drill Trace 12 – South



The drill trace indicates an area of variable resistance from c.8cm to c.17cm

From c.17cm through to the end of the assessment, the drill trace suggests an area of more advanced decay is forming

## Drill Trace 13 – West



The drill trace indicates an area of incipient decay is forming from c.5cm through to c.8cm where it becomes more extensive in nature with decay/hollowing being present through to the end of the assessment

## 4.0 Summary of Results

The east drill trace was undertaken on a buttress root that separates the larger cavity with the smaller cavity on the north east side of the stem and indicates a thickness of c.33cm of sound wood before the drill enters the main void area

The southern assessment was also undertaken on a buttress root and suggests a thickness of sound wood c.24cm deep before it enters an area of extensive decay/hollowing

The assessment around the south west to north west side of the stem indicates a thinning of the sound wood wall on the with an average thickness of c.12cm

The drill traces undertaken in a vertical axis on the north west side of the stem (Drill Traces 7 – 9) indicate an average thickness of sound wood of c.12.5cm

The four drill traces undertaken at c.1.5m, at the tree's cardinal points, suggest that decay is beginning to migrate in a downward direction from the cavity at c.2.3m with the west and north exhibiting the thinnest depth of sound wood whilst the east indicated the thickest

In my opinion, the large basal cavity has coalesced with the cavity at c.2.3m resulting in a column of extensive decay and hollowing. The action of the decay fungi will continue to affect the wood structure with an increased risk of complete failure in the event the decay expands further into currently sound wood

To reduce the risk of failure, the tree should be reduced in height to leave a stem height shorter than the distance to the boundary wall to the west, c.5.0m and although I do not consider there to be a need for complete removal at this time, this option would be justifiable

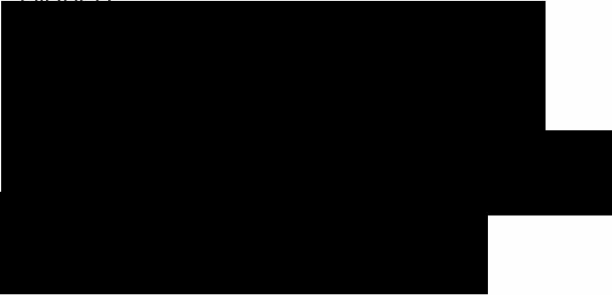
I would recommend the work is undertaken within the next 6 months and before the start of the 2022 bird nesting season

If the tree is located within a conservation area or subject to a tree preservation order, a formal application to the local planning authority will be required and written consent obtained prior to any work is carried out

## 5.0 Recommendations

- Implement the tree work in the time period specified
- Reassess within the current reinspection time frame

Signed:



## 6.0 Appendix 1

### 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 FAIR POOR MORIBUND DEAD	no significant health problems some symptoms of ill health significant symptoms of ill health in a serious and irreversible decline not alive