HAYDEN'S
Arboricultural Consultants

5 Moseley's Farm
Business Centre
Fornham All Saints
Bury St Edmunds
Suffolk IP28 6JY
T: 01284 765391
E: info@treesurveys.co.uk
www.treesurveys.co.uk

Eastern Landscape Service Limited
27 High Street
Cottenham
Cambridgeshire
PE27 6WB

19th December 2024

Dear Eastern Landscape Service Limited,

Re: 11383 - Micro Drill Testing of 1x Sycamore (T001) at 9 Bury Close, St Ives, PE27 6WB

T001 – Sycamore (*Acer pseudoplatanus*)

Description of tree and location – The tree is located in the rear garden of 9 Bury Close. It is a large, multi-stemmed specimen that is situated adjacent to the garden boundary fence.

Description of defects – The main stem exhibits two deep cavities that both feature fungal fruiting bodies of *Cerioporus squamosus* at 1.5-2m above ground level. Only the remnants of the fruiting bodies were visible at the time of inspection. The cavities are to the east and west sides of the tree. Both cavities extend at least 500mm in towards the centre of the stem with obviously decayed wood present during investigative probing.

Height & location of Decay Analysis – A total of five micro drill tests were completed using the IML PD-500 Micro Drill. The tests were undertaken at cardinal points on the compass or in proximity with areas of obvious infection. Testing was at 1.8-2m above ground level to create a level cross section while accounting for the slope in the ground.

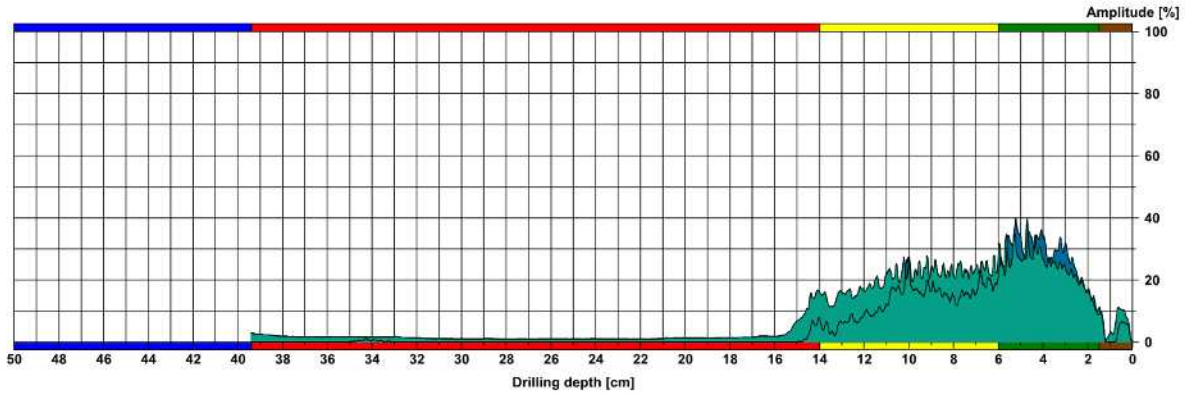
IML PD-500 Micro Drill Assessment: The IML PD500 Micro Drill is a calibrated micro drill which measures the resistance to the progress of a 500mm long, 2mm diameter drilling needle bit. The results are appended as a graph (one for each test performed) which displays two colours; blue represents the feed rate and green represents the penetration resistance. The graph is read from right to left and can be interpreted to evaluate relative wood strength, decay pockets, variations in ring growth, structural condition of cell walls and tree responses to environmental conditions. The variation in resistance results in increases and decreases in the amount of torque applied to the drill shaft. By means of sophisticated mechanical and electronic sensors, variations in torque are translated into graphical output which depicts the internal conditions encountered by the drill at the specific point of drilling.

Micro Drill Testing Locations

Test No.	Location of test
1	Measurement 1 taken from the south-west of the stem in close proximity with the cavity.
2	Measurement 2 taken from the south-south-west of the stem.
3	Measurement 3 taken from the south of the stem.
4	Measurement 4 taken from the south-east of the stem.
5	Measurement 5 taken from the north of the stem.

Analysis of Micro Drill test results:

Test 1



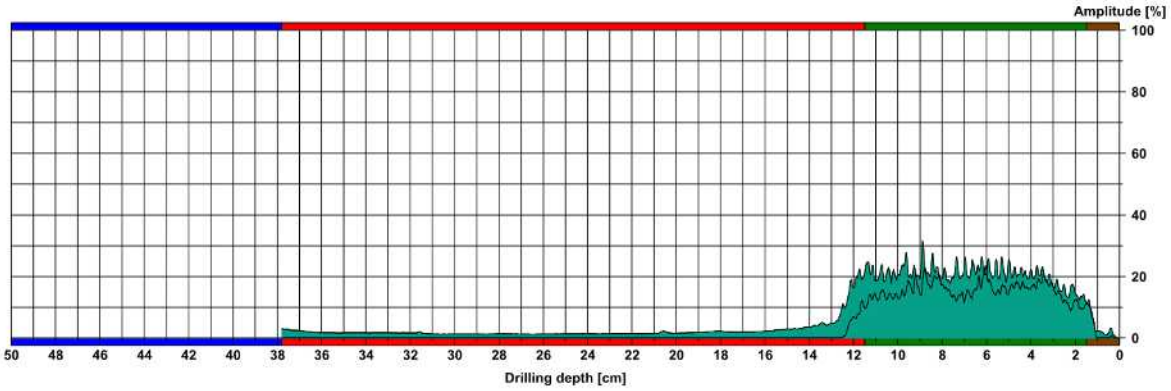
Assessment

From	0.00 cm to	1.50 cm :	Bark
From	1.50 cm to	6.00 cm :	Solid wood
From	6.00 cm to	14.00 cm :	Incipient decay
From	14.00 cm to	39.40 cm :	Decay
From	39.40 cm to	50.00 cm :	End of test

Comment

South-west aspect at 1.8m adjacent to cavity

Test 2



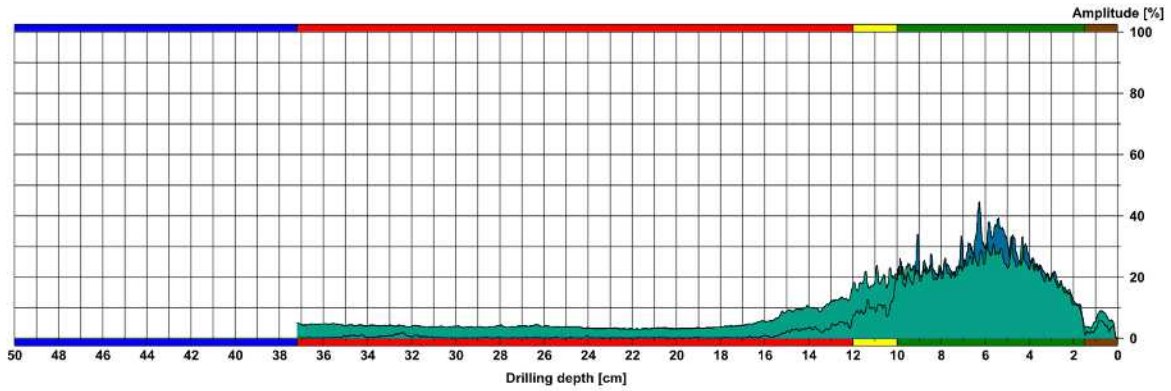
Assessment

From	0.00 cm to	1.50 cm :	Bark
From	1.50 cm to	11.50 cm :	Solid wood
From	11.50 cm to	37.80 cm :	Decay
From	37.80 cm to	50.00 cm :	End of test

Comment

South-south-west at 1.8m

Test 3



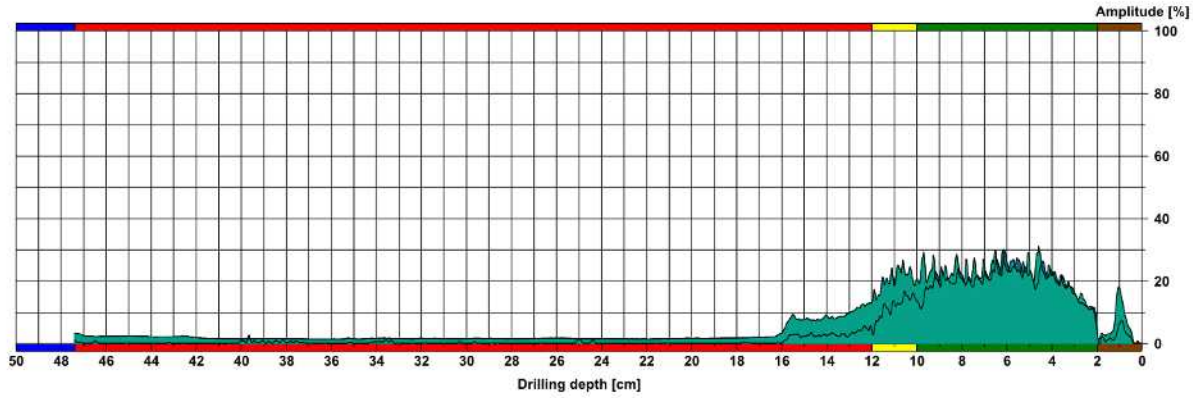
Assessment

From	0.00 cm to	1.50 cm :	Bark
From	1.50 cm to	10.00 cm :	Solid wood
From	10.00 cm to	12.00 cm :	Incipient decay
From	12.00 cm to	37.20 cm :	Decay
From	37.20 cm to	50.00 cm :	End of test

Comment

South at 1.8m

Test 4



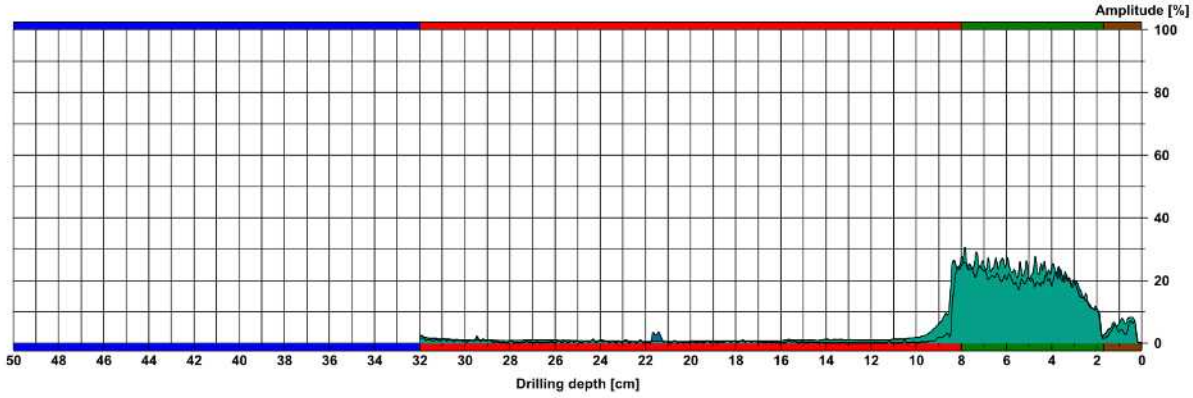
Assessment

From	0.00 cm	to	2.00 cm	: Bark
From	2.00 cm	to	10.00 cm	: Solid wood
From	10.00 cm	to	12.00 cm	: Incipient decay
From	12.00 cm	to	47.40 cm	: Decay
From	47.40 cm	to	50.00 cm	: End of test

Comment

South-east at 1.8m

Test 5



Assessment

From	0.00 cm	to	1.70 cm	: Bark
From	1.70 cm	to	8.00 cm	: Solid wood
From	8.00 cm	to	32.00 cm	: Decay
From	32.00 cm	to	50.00 cm	: End of test

Comment

North at 1.8m

Attempts were made to test additional aspects of the stem/main union but the uneven ground impeded the ability to undertake these tests at the required height.

Conclusions and Work Recommendations for T001

The results show that there is significant internal decay in the main stem (highlighted by the red horizontal bars in the charts). This decay is considered to be serious at the present time and only a comparatively narrow band of good wood around the circumference of the stem is holding the tree up (the green horizontal bars in the charts). Where there are blue horizontal bars in the charts, this is representative of so little resistance in the wood that the drill automatically ends the test; it does not necessarily mean a void. Given the size of the tree, its multiple stems, the falling range into adjacent properties and the narrow width of solid wood, it is advised that T001 is felled to ground level. As T001 is subject to a tree preservation order, a tree works application to fell the tree will need to be submitted as soon as possible.

I trust the above provides you with the information that you require however if you have any questions or queries, then please do not hesitate to contact me.

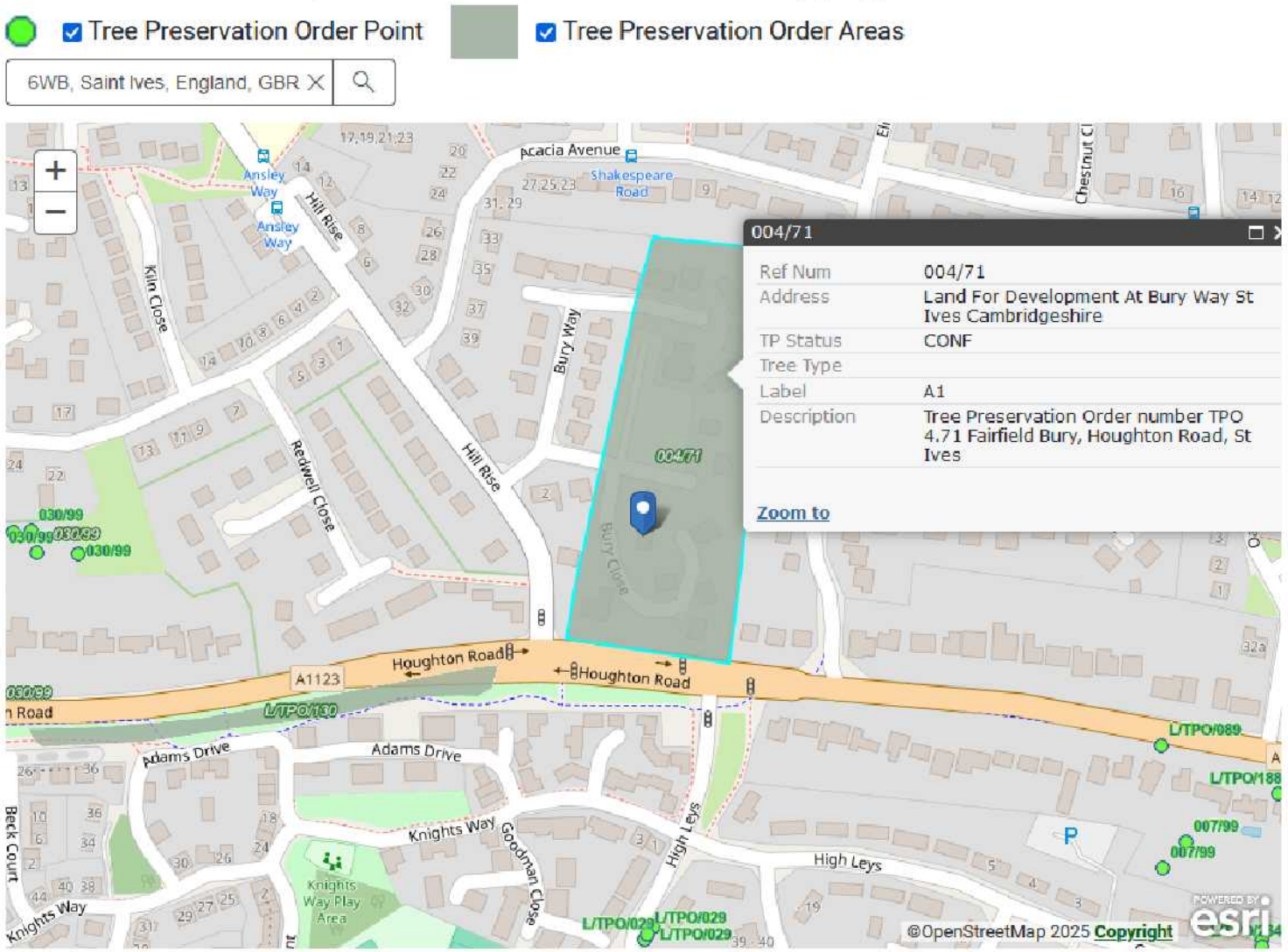
Yours sincerely

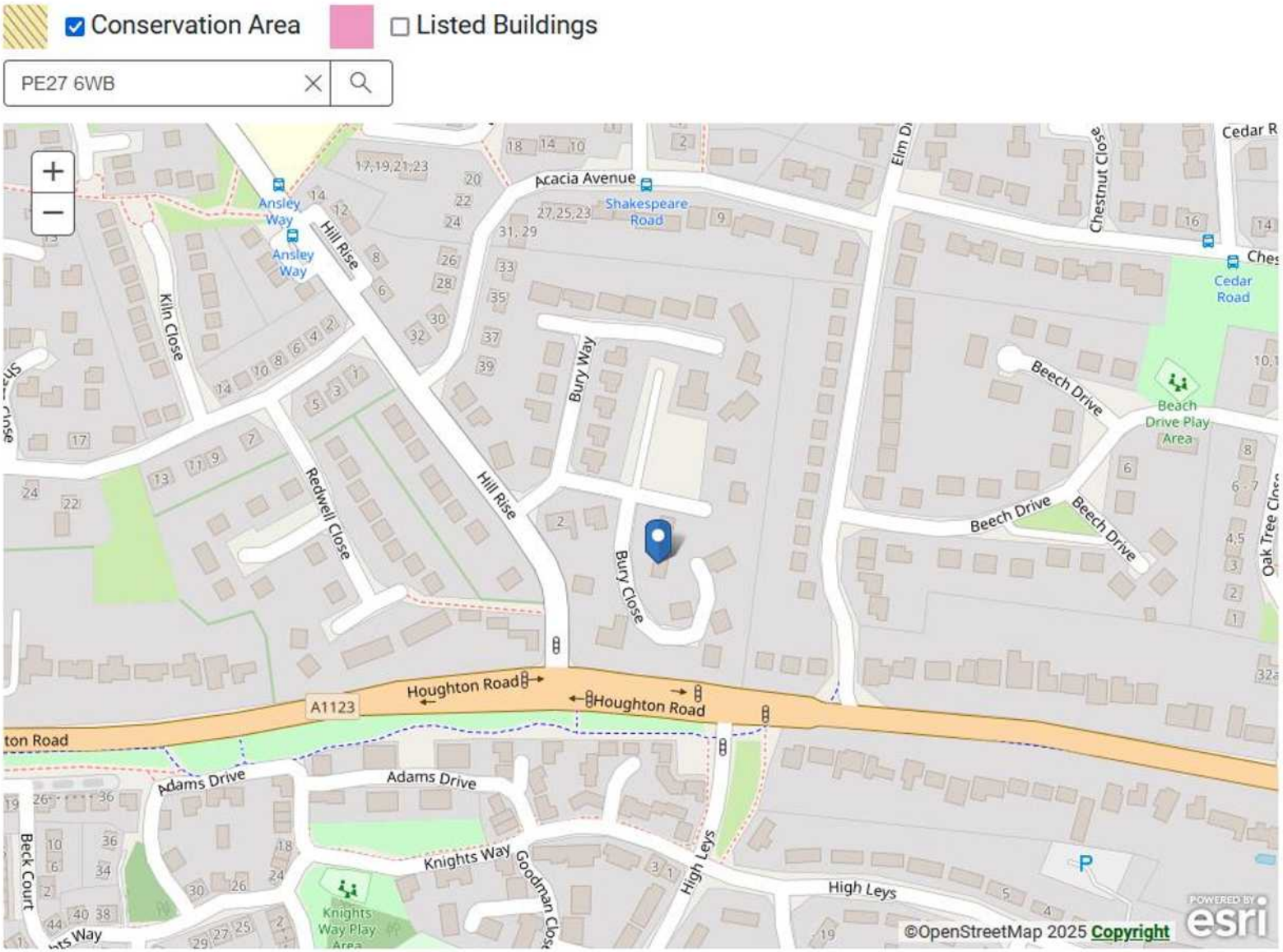
[redacted]

Arboricultural Consultant

Enclosed: TPO/Conservation Area Online Mapping

Tree Preservation Order / Conservation Area Online Mapping Extract




Conservation Area
Listed Buildings
PE27 6WB
Acacia Avenue
Shakespeare Road
Ansley Way
Hill Rise
Kiln Close
Redwell Close
Bury Way
Bury Close
Chestnut Close
Cedar Road
Beech Drive
Beech Drive Play Area
Oak Tree Close
A1123
Houghton Road
Houghton Road
Adams Drive
Adams Drive
Knights Way
Goodman Close
High Leys
High Leys
Beck Court
Knights Way Play Area
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