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# Tree Survey Grays Inn Gardens 2023.

### Summary:

The following tree survey includes all the trees in Grays Inn Gardens. During the inspection I observed the impact of recent use of the 'Top lawn'. There is evidence of compaction of the topsoil throughout the whole area. This activity will have a detrimental influence on the tree roots overall. Starving the trees of normal nutrients, moisture and vital gaseous exchange, as the compaction increases. As these trees are considered veteran, very mature specimen, they are unlikely to survive and will dieback rapidly causing them to become hazardous in the long term. It is appropriate to consider installing a covering like a 'cellar confinement system' to reduce the compaction long term impact. Example <https://www.geosyn.co.uk/application/tree-preservation-orders>

The survey also identified an historic issue with the pollarded London Plane trees in Field Court. Most of these 8no specimen are in a decaying condition, with hazardous decayed pollard points, and cavities throughout: see photographs on pages 38/39. It is now appropriate to recommend that a major replanting project is initiated. To include the staged removal and replanting, with semi mature Acer campestre (Field Maples) subsequent to Local Authority consent and structural engineer consultations.

The individual tree survey recommends mainly remedial works generally to maintain the trees in a safe condition. The Robinia T115 has been identified as requiring removal, because of the fungal brackets at its base, and the erosion of the root area.

Permission will be required to be granted by the Local Authority before recommended works can be undertaken.

Recommended works should be undertaken within 12 months.

Resurvey required next April 2025/ 'Top Lawn' Trees 6 monthly, next survey due November 2023.

**1.1 Inspection date:** 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> April 2023 by Mr. Kim Gifford, undertaken in the area of test and at the time of inspection.

**1.2 Method:** using Picus 3 software Q74 Expert, 12 test points in accordance with manufacturers manual. *Visual Tree inspection references, Principles of Tree Hazard Assessment and Management by David Lonsdale and The body language of trees by Claus Mattheck and Helge Breoer. The Arboricultural Association guidance note 7 tree surveys a guide to good practice. Lantra award Professional tree inspection.*

**1.3 Instruction:** I Kim Gifford Arboricultural Consultant (see profile page 52)

My brief is to carry out the tree survey/ decay detection/assessment using a Picus Sonic Tomograph test and Micro Resitograph test on identified trees at: Grays Inn Gardens, Holborn, London WC1R 5ET

The test will involves taking readings at an appropriate level determined by the requirements of the specimen defect. I am to make recommendations on the immediate and future management of the subject tree based on the test findings.

**1.4 Background:** I understand that there has been concerns about the safety of this specimen. As a result of this inspection, it was felt that further investigation was required to determine the extent of decay so that he could make an informed decision on the future management.

**Report limitations:**

Any recommendations made in this report are based on the results of this Resistograph test in conjunction with the independent Arboricultural opinion of the author with specific regard to:

- Interpreting the results
- An assessment of the physical and physiological condition of the tree
- An assessment of its location

They do not constitute a direct management instruction in any way, and they may not always align with the opinion or decision of the recipient. Tree management decisions can be led or constrained by other factors such as organisational tree management strategies, resource/finance availability, appetite for risk, legal constraints or overarching policies/procedures to which the author has no knowledge or influence.

This report is only concerned with the trees identified above and its location is shown in Fig 1. All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without prior approval from the author.

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The author shall not be responsible for events that happen after the date of the report due to factors that were not apparent at the time. Healthy trees, or parts of healthy trees, may fail when affected by unusually high winds, drought, land slip, subsidence, heave or storms and as such the consequences of such conditions cannot be accounted for in the scope of this report.

No soil analysis was undertaken, any possible underground conditions or conflict were investigated as far as a surface visual inspection would allow. Detailed background information concerning the past history of the location, its hydrology or geology was not known at the time of the inspection.

This report relates specifically to the condition of the Gray Inn Garden trees on the day of inspection and remains valid for a period of 12 months from the date it was undertaken.

The acceptance of this report constitutes an agreement with the limitations and terms listed above.



Figure 1 Tree Numbers 2023

Tree no.	Location and tag number	Site features	Species (Common name)	Height (m)	Crown spread (m)	Diameter at breast height (cm)	Tree defects	Condition	Recommendations	Priority	Next inspection date	Inspection date	Picus Test No.	Notes
1	Gray's Inn Gardens No tag	Grass Public access: high Street lamp	Crataegus x lavalleyi (Hyb.Cockspur Thorn)	5.0m	5.0m	17cm	None recorded.	Fair	None recorded.	No action required	Apr-25	05/04/2023		
2	South Square front of 8 Treasury Tag 950	Building within or touching canopy Public access: high Street lamp Tree pit in hard surface	Ligustrum lucidum (Chinese Privet)	5.5m	6.0m	19cm	None recorded	Fair	Crown lift and formative prune	Essential	Apr-25	05/04/2023		Crown lift 2.3m and formative prune
3	Gray's Inn Gardens front of Atkin Building Tag 611	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	21.4m	14.0m	81cm	None recorded	Fair	None recorded	Essential	Apr-25	05/04/2023		Previously reduced 2020, Massaria Inspection Record Clear of Massaria
4	Gray's Inn Gardens front of Atkin Building Tag 610	Building within or touching canopy Public access: high Tree pit in hard surface	Platanus x hispanica (London Plane)	24.6m	14.0m	101cm	None recorded.	Fair	Massaria Inspection Record 03042023 CZ 4 10cms X 2m SW. Remove lower branch with rotting pruning cut (see pic 4)	Essential	Apr-25	05/04/2023		Remove lower branch with decaying pruning cut (see pic 4)

5	Gray's Inn Gardens front of Atkin Building Tag 609	Building within or touching canopy Public access: high Tree pit in hard surface	Platanus x hispanica (London Plane)	22.6m	12.0m	75cm	None recorded	Fair	Massaria Inspection Record 30/10/2020 Branch Crown Zone 4 Diam. 10cm X 2m Southwest - Remove	Essential	Apr-25	05/04/2023		Remove infected branch
6	Gray's Inn Front of 1 Raymonds building Tag 600	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	28.5m	14.0m	111cm	Raised roots /buttressing	Fair	Massaria Inspection 04042023 CZ 3 15cms X 3m W	Essential	Apr-25	05/04/2023		Remove infected branch. (see pic 6)
7	Gray's Inn Front of 1 Raymonds building Tag 601	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	28.5m	12.0m	95cm	None recorded	Fair	None recorded	Essential	Apr-25	05/04/2023		Massaria Inspection Record Clear of Massaria
8	Gray's Inn Front of 1 Raymonds building Tag 602	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	28.5m	12.0m	55cm	None recorded.	Fair	None recorded	Essential	Apr-25	05/04/2023		Massaria Inspection Record Clear of Massaria
9	Gray's Inn Front of 2 Raymonds building	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	5.0m	5.0m	13cm	Low branches	Fair	double terminal leader, remove one to formative prune.	Essential	Apr-25	05/04/2023		Massaria Inspection Record Clear of Massaria, double terminal leader, remove one to formative prune.

10	Gray's Inn Front of 5 Raymonds building Tag 606	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	21.8m	13.0m	103cm	Basal rot - 35cm by 35cm area of decay on rear lower stem, West side. Root surface damage to parking bay approx. 2m long.	Fair	None recorded	No action required	Apr-25	05/04/2023		Massaria Inspection Record Clear of Massaria
11	Gray's Inn Gardens rear of Atkin Building Tag 607	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	14.2m	19.0m	67cm	Low branches	Fair	None recorded	Essential	Apr-25	05/04/2023		Massaria Inspection Record Clear of Massaria
12	Gray's Inn Gardens rear of Atkin Building Tag 608	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	22.6m	12.0m	95cm	Low branches	Fair	<b>Massaria Inspection Record 04042023 CZ 3 10cm X 3m SE</b>	Essential	Apr-25	05/04/2023		<b>Remove crossing branches on Northside, remove basal growth. (See pic 12)</b>
13	Gray's Inn Gardens Avenue Tag 659	Grass Public access: high	Quercus rubra (Red Oak)	18.5m	10.0m	36cm	None recorded.	Fair	<b>Remove deadwood</b>	Essential	Apr-25	05/04/2023		
14	Gray's Inn Gardens Avenue Tag 658	Grass Public access: high	Quercus rubra (Red Oak)	16.0m	15.0m	40cm	Minor dead wood <50mm	Fair	<b>Remove deadwood</b>	Essential	Apr-25	05/04/2023		
15	Gray's Inn Gardens rear of Atkin Building Tag 638	Building within or touching canopy Grass Public access: high	Cedrus atlantica (Atlas Cedar)	10.0m	13.0m	47cm	Low branches	Fair	None recorded.	No action required	Apr-25	05/04/2023		
16	Gray's Inn Gardens Avenue Tag 652	Grass Public access: high	Quercus rubra (Red Oak)	7.0m	8.0m	22cm	Deadwood	Fair	<b>Remove deadwood / Crown lift</b>	Essential	Apr-25	05/04/2023		



17	Gray's Inn Gardens Avenue Tag 649	Grass Public access: high	Quercus rubra (Red Oak)	20.0m	12.0m	51cm	Deadwood	Fair	Remove deadwood / Crown lift	Essential	Apr-25	05/04/2023		
18	Gray's Inn Gardens Avenue Tag 653	Grass Public access: high	Quercus rubra (Red Oak)	13.0m	10.0m	38cm	Deadwood	Fair	Remove deadwood / Crown lift	Essential	Apr-25	05/04/2023		
19	Gray's Inn Gardens Avenue Tag 654	Grass Public access: high	Quercus rubra (Red Oak)	14.0m	18.5m	49cm	Deadwood	Fair	Remove deadwood / Crown lift	Essential	Apr-25	05/04/2023		
20	Gray's Inn Gardens Avenue Tag 650	Grass Public access: high	Quercus rubra (Red Oak)	20.0m	12.0m	51cm	Deadwood, fungal bracket at base, Picus tested appears sound, continue to monitor	Fair	Remove deadwood / Crown lift	Essential	Apr-25	05/04/2023	P7	
21	Gray's Inn Gardens Avenue Tag 655	Grass Public access: high	Quercus rubra (Red Oak)	12.0m	16.0m	43cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
22	Gray's Inn Gardens Avenue Tag 656	Grass Public access: high	Quercus rubra (Red Oak)	16.0m	12.0m	45cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
23	Gray's Inn Gardens Avenue Tag 648	Grass Public access: high	Quercus rubra (Red Oak)	16.6m	12.0m	32cm				Essential		05/04/2023		Removed and replanted
24	Gray's Inn Gardens Avenue Tag 651	Grass Public access: high	Quercus rubra (Red Oak)											Removed and replanted
25	Gray's Inn Gardens Tag 639	Building within or touching canopy Grass Public access: high	Catalpa bignonioides (Indian Bean Tree)	13.0m	12.0m	42cm	Low branches Minor dead wood <50mm Raised. roots/buttreassing	Fair	Crown lift <5m tree to Approx 2m from structure) - selective crown lifting as necessary. Remove dead and diseased wood	Essential	Apr-25	05/04/2023		Decay in the upper crown

26	Gray's Inn Gardens Tag 640	Building within or touching canopy Grass Public access: high	Catalpa bignonioides (Indian Bean Tree)	9.0m	12.0m	46cm	Major dead wood >50mm Splits in major limb/crotch/trunk	Fair	Remove dead and diseased wood -	Essential	Apr-25	05/04/2023		Partially failed tree laying on lawn.
27	Gray's Inn Gardens Avenue Tag 660	Grass Public access: high	Quercus rubra (Red Oak)	16.0m	12.0m	43cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
28	Gray's Inn Gardens Avenue Tag 661	Grass Public access: high	Quercus rubra (Red Oak)	10.0m	6.0m	20cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
29	Gray's Inn Gardens Avenue Tag 662	Grass Public access: high	Carpinus betulus (Hornbeam)	6.0m	2.0m	6cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
30	Gray's Inn Gardens Avenue Tag 663	Grass Public access: high	Quercus rubra (Red Oak)	9.0m	8.0m	19cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
31	Gray's Inn Gardens Avenue Tag 665	Grass Public access: high	Quercus rubra (Red Oak)	10.0m	10.0m	35cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		Stem has a slight lean to southeast.
32	Gray's Inn Gardens Avenue Tag 666	Grass Public access: high	Quercus rubra (Red Oak)	15.0m	12.0m	51cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		Stem at 5m leans towards the West.
33	Gray's Inn Gardens Avenue Tag 667	Grass Public access: high	Quercus rubra (Red Oak)	20.0m	12.0m	46cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
34	Gray's Inn Gardens Avenue Tag 668	Grass Public access: high	Quercus rubra (Red Oak)	15.0m	12.0m	36cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
35	Gray's Inn Gardens Avenue	Grass Public	Quercus rubra (Red Oak)	16.0m	12.0m	45cm	Deadwood/ fungal bracket monitor	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		

	Tag 669	access: high												
36	Gray's Inn Gardens Avenue Tag 670	Grass Public access: high	Quercus rubra (Red Oak)	14.0m	12.0m	49cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
37	Gray's Inn Gardens Avenue Tag 671	Grass Public access: high	Quercus rubra (Red Oak)	17.0m	12.0m	45cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
38	Gray's Inn Gardens Avenue Tag 672	Grass Public access: high	Quercus rubra (Red Oak)	15.0m	12.0m	34cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
39	Gray's Inn Gardens Avenue Tag 673	Grass Public access: high	Carpinus betulus (Hornbeam)	5.0m	2.0m	11cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
40	Gray's Inn Gardens Avenue Tag 674	Grass Public access: high	Quercus rubra (Red Oak)	16.0m	12.0m	35cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
41	Gray's Inn Gardens Avenue Tag 675	Grass Public access: high	Quercus rubra (Red Oak)	16.0m	12.0m	37cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		
42	Gray's Inn Gardens Avenue Tag 676	Grass Public access: high	Quercus rubra (Red Oak)	10.0m	7.0m	20cm	Deadwood	Fair	Remove deadwood	Essential	Apr-25	05/04/2023		Remove deadwood on the Northwest side.
43	Gray's Inn Gardens adjacent main gate Tag 677	Grass Public access: high	Platanus x hispanica (London Plane)	33.0m	27.0m	168cm	Minor dead wood <50mm Decay/bark cracking on South side of stem approx. 1.5m height by 20cm.	Fair	Massaria Inspection Record 03042023 None recorded. Remove deadwood on Northeast side. Reduce limbs back to previous pruning points on east side to allow light into 1 Grays inn Square.	Essential	Apr-25	05/04/2023		Reduce limbs back to previous pruning points on east side to allow light into 1 Grays inn Square. Remove deadwood

44	Gray's Inn Gardens Avenue Tag 678	Grass Public access: high	Platanus x hispanica (London Plane)	35.0m	20.0m	131cm	None recorded	Fair	Massaria Inspection Record 03042023 CZ 3 15cms 6m SE (Monitor) Remove deadwood and decayed limb on South East side.	Essential	Apr-25	05/04/2023		Remove deadwood (see pic 44)
45	Gray's Inn Gardens Avenue Tag 642	Grass Public access: high	Platanus x hispanica (London Plane)	35.0m	20.0m	122cm	Woodpecker hole in upper crown.	Fair	Massaria Inspection Record 03042023 None recorded. Remove hanging branch on southwest side, remove crossing limb one on east side and one on northeast side, reduce by 2-3m due to hollow section. southwest, Remove infected branches	Essential	Apr-25	05/04/2023		Remove hanging branch on southwest side, remove crossing limb one on east side and one on northeast side, reduce by 2-3m due to hollow section. (See pic 45)
46	Rear of 2 Gray's Inn Square	Building within or touching canopy Grass Public access: high	Prunus 'Kanzan' (Pink Japanese Cherry)	8.0m	12.0m	34cm	Low branches Major dead wood >50mm	Fair	Heavy reduction, reduce overall by 3m to 4m, shape and balance.	Essential	Apr-25	05/04/2023		
47	Rear of 2 Gray's Inn Square Tag 916	Building within or touching canopy	Malus prunifolia (Crab Apple)	8.0m	9.0m	27cm	Crossing branches Low branches	Fair	Crown reduce overall	Essential	Apr-25	05/04/2023		
48	Rear of 2 Gray's Inn Square	Public access: high	Unknown broadleaf (Unknown - Broadleaf)	1.0m	1.0m	3cm	None recorded.	Fair						
49	Rear of 2 Gray's Inn Square Tag 918	Building within or touching canopy Public access: high	Prunus 'Kanzan' (Pink Japanese Cherry)	12.0m	10.0m	34cm	Low branches Minor dead wood <50mm	Fair	Previously pruned	No action required	Apr-25	05/04/2023		
50	Gray's Inn Gardens Avenue	Grass Public access: high	Carpinus betulus (Hornbeam)	2.0m	1.0m	4cm	None recorded.	Fair	None recorded		Apr-25	05/04/2023		Newly planted.

51	Gray's Inn Gardens Avenue	Grass Public access: high	Unknown broadleaf (Unknown - Broadleaf)	2.0m	1.0m	4cm	None recorded.	Fair	None recorded		Apr-25	05/04/2023		Newly planted.
52	Gray's Inn Gardens Tag 919	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	35.0m	20.0m	147cm	Minor dead wood <50mm	Fair	<b>Massaria Inspection Record 05042023</b> CZ 3 15cms X 4m N, CZ 2 5cms X 4m S, CZ 2 X 10cms SE. Remove Monitor. Crown reduce major branches overhanging building and guttering, reduce and balance crown overall by 4m.	Essential	Apr-25	05/04/2023		<b>Crown reduce major branches overhanging building and guttering, reduce and balance crown overall by 4m. Remove infected branches. (See pics 52)</b>
53	Gray's Inn Gardens Avenue Tag 664	Grass Public access: high	Quercus rubra (Red Oak)											Removed and replanted
54	Gray's Inn Gardens Avenue Tag 657	Grass Public access: high	Quercus rubra (Red Oak)											Removed and replanted
55	Gray's Inn Gardens Tag 920	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane) "White Plane"	34.0m	18.0m	97cm	Picus test and micro drill results found extensive decay in the root plate.	Fair	None Recorded, recent major reduction undertaken 2022.	Essential	Apr-25	05/04/2023	P1	Massaria Inspection Record Clear of Massaria
56	Gray's Inn Gardens Tag 923	Building within or touching canopy Public access: high	Cedar of Lebanon ( Cedar)	11.0m	11.0m	47cm	Low branches	Fair	Storm damaged - July 2023. Remove damaged branches	No action required	Apr-25	05/04/2023		
57	Gray's Inn Gardens no tag	Grass Public access: high	Platanus x hispanica (London Plane)	6.0m	4.0m	16cm	None recorded.	Fair	None recorded.	Essential	Apr-25	05/04/2023		Formative prune - Crown Lift 2.5m.

58	Gray's Inn Gardens Tag 641	Grass Public access: high Street lamp	Platanus x hispanica (London Plane)	36.0m	18.0m	132cm	Cavity - Located Southwest stem at approximately 7.2m Minor dead wood <50mm Sparse crown <b>Picus test shows extensive decay continue to monitor and review - Resi test undertaken see report</b>	Fair	<b>Massaria Inspection Record 03042023 CZ 4 15cms 5m N. Remove rubbing branches on North and North-western side., reduce by 2-3m due to hollow section. southwest, Remove infected branches</b>	Essential	Apr-25	05/04/2023	P2	<b>Remove rubbing branches on North and North-western side., reduce by 3-4m due to hollow section.</b>
59	Gray's Inn Gardens next to seating area Tag 615	Public access: high	Platanus x hispanica (London Plane)	25.0m	20.0m	157cm	Minor dead wood <50mm Sparse crown <b>Picus test shows decay maintain present reduction review and monitor.</b>	Fair	<b>Massaria Inspection Record 05042023 CZ 4 15cms X 5-6m. Remove</b>	Essential	Apr-25	05/04/2023	P3	<b>Remove infected branches. Remove dead branch on Northwest side. ASAP (see pics 59)</b>
60	Gray's Inn Gardens Tag 614	Grass Public access: high Street lamp	Acer saccharinum (Silver Maple)	17.0m	12.0m	82cm	recently pruned	Fair	None recorded	no action required	Apr-25	05/04/2023		
61	Gray's Inn Gardens	Grass Public access: high Street lamp	Crataegus x lavallei (Hyb.Cockspur Thorn)	5.0m	5.0m	17cm	Crossing branches Low branches Multithemed	Fair	None recorded	No action required	Apr-25	05/04/2023		
62	Gray's Inn Gardens Tag 613	Public access: high Shrub bed Street lamp	Platanus x hispanica (London Plane)	27.0m	12.0m	82cm	Crown lift low trailing branches over footpath	Fair	Crown lift low trailing branches over footpath	Essential	Apr-25	05/04/2023		Massaria Inspection Record Clear of Massaria - <b>Remove low trailing branches over footpath.</b>
63	Gray's Inn Gardens Avenue Tag 643	Grass Public access: high	Quercus rubra (Red Oak)	15.5m	8.0m	27cm	Deadwood	Fair	<b>Remove deadwood / Crown lift</b>	Essential	Apr-25	05/04/2023		Tag Missing.
64	Gray's Inn Gardens Avenue Tag 644	Grass Public access: high	Quercus rubra (Red Oak)	15.0m	10.0m	36cm	Deadwood	Fair	<b>Remove deadwood / Crown lift</b>	Essential	Apr-25	05/04/2023		Irregular crown shape due to previous loss leading stem. Epicormic regrowth on old pruning wounds.
65	Gray's Inn Gardens Avenue	Grass Public access:	Quercus rubra (Red Oak)	17.0m	11.0m	35cm	Deadwood	Fair	<b>Remove deadwood / Crown lift</b>	Essential	Apr-25	05/04/2023		Removed and replanted

	Tag 645	high												
66	Gray's Inn Gardens Avenue Tag 646	Grass Public access: high	Quercus rubra (Red Oak)	20.0m	14.0m	48cm	Deadwood	Fair	Remove deadwood / Crown lift	Essential	Apr-25	05/04/2023		Epicormic regrowth on old pruning wounds.
67	Gray's Inn Gardens Avenue Tag 647	Grass Public access: high	Quercus rubra (Red Oak)	17.0m	13.0m	45cm			Remove deadwood / Crown lift	Essential		05/04/2023		Removed and replanted
68	South Square Tag 949	Building within or touching canopy Public access: high Street lamp Tree pit in hard surface	Ligustrum lucidum (Chinese Privet)	6.8m	7.0m	29cm	None recorded	Fair	Crown lift and formative prune	Essential	Apr-25	05/04/2023		Crown lift 2.3m and formative prune
69	Gray's Inn Gardens rear of Atkin Building Tag 616	Building within or touching canopy Grass Public access: high	Acer rubrum (Scarlet Maple)	11.0m	7.0m	28cm	None recorded	Fair	Cut back from building, remove broken branches.	Essential	Apr-25	05/04/2023		Cut back from building by 1m, remove broken branches.
70	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Cydonia oblonga Vranja	4.0m	5.0m	10cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		

71	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Mespilus germanica (Medlar)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
72	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus prunifolia (Crab Apple)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
73	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus Purpuree (Apple spp)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
74	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus Purpuree (Apple spp)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
75	Grays inn Gardens rear Raymond building	Building within or touching canopy Grass Public access: high	Malus Purpuree (Apple spp)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		



76	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus Purpuree (Apple spp)	5.0m	4.0m	10cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
77	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus Purpuree (Apple spp)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
78	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus Purpuree (Apple spp)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
79	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus prunifolia (Crab Apple)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
80	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Malus Purpuree (Apple spp)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		

81	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Prunus spp. (Cherry spp)	5.0m	4.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
82	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Prunus spp. (Cherry spp)	4.0m	5.0m	8cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
83	Gray's Inn Gardens rear of Raymond Building	Building within or touching canopy Grass Public access: high	Prunus spp. (Cherry spp)	5.0m	5.0m	7cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
84	Gray's Inn Gardens rear of Raymond Building Tag 620	Building within or touching canopy Grass Public access: high	Cedrus deodara (Deodar Cedar)	13.0m	8.0m	43cm	None recorded	Fair	None recorded.	No action required	Nov-23	05/04/2023		
85	Gray's Inn Gardens rear of Raymond Building Tag 619	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	32.0m	22.0m	136cm	Historic pruning wounds Minor dead wood <50mm Sparse crown	Fair	<b>Massaria Inspection Record 04042023 None found</b>	Essential	Nov-23	05/04/2023		<b>Reduce overextended limb growing towards the building on West side. By 3m to 4m. (See pic 85)</b>

86	Gray's Inn Gardens rear of Atkin Building Tag 623	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	32.0m	22.0m	136cm	Historic pruning wounds Minor dead wood <50mm	Fair	None recorded	Essential	Nov-23	05/04/2023		Massaria Inspection Record Clear of Massaria
87	Gray's Inn Gardens adjacent 1 Raymond Building	Building within or touching canopy Public	Robinia pseudoacacia (False Acacia)	13.0m	10.0m	25cm	Minor dead wood <50mm	Fair	<b>Reduce overhang from entrance</b>	Essential	Apr-25	05/04/2023		<b>Reduce overhang from entrance by 1.5m</b>
88	Gray's Inn Gardens adjacent Raymond Building Tag 622	Building within or touching canopy Grass Public access: high	Carpinus betulus (Hornbeam)	17.0m	14.0m	36cm	Historic pruning wounds - signs of occluding. Leaning tree - Slight lean towards road. Minor dead wood <50mm	Fair	None recorded	Essential	Apr-25	05/04/2023		Pruned
89	Gray's Inn Gardens	Building within or touching canopy Grass Public access: high	Tilia spp. (Lime spp)	8.0m	10.0m	16cm	Crossing branches Low branches Broken\lost leader - Irregular crown shape due to historic lost leader. Raised roots/buttressing	Fair	None recorded.	No action required	Nov-23	05/04/2023		
90	Gray's Inn Gardens rear of Raymond Building Tag 618	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	31.0m	17.0m	124cm	Minor dead wood <50mm Bulges in trunk: signs of decay	Fair	<b>Massaria Inspection Record 03042023</b> <b>CZ 3 10cms x 4m SW</b> <b>Remove infected/ Reduce limb on SW side by 4m growing towards building.</b> <b>Remove basal growth.</b>	Essential	Apr-25	05/04/2023		<b>Remove infected/ Reduce limb on SW side by 4m growing towards building. Remove basal growth.</b> <b>Crown lift trailing low branches.</b>

91	Gray's Inn Gardens rear of Atkin Building Tag 617	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	37.0m	17.0m	129cm	Historic pruning wounds Minor dead wood <50mm Bulges in trunk: signs of decay <b>Picus test shows decay continue to monitor and review</b>	Fair	<b>Massaria Inspection Record 03042023 CZ 4 10cm X 3m N. Remove infected branches, remove two small branches growing on two separate stems on E/SE side, remove basal growth, crown lift low trailing branches. North &amp; CZ 4 15cm X 3m west. Remove infected branches.</b>	Essential	Apr-25	05/04/2023	P4	<b>Remove infected branches, remove two small branches growing on two separate stems on E/SE side, remove basal growth, crown lift low trailing branches by 3m to 4m. North &amp; CZ 4 15cm X 3m west. Remove infected branches. (see pic 91)</b>
92	Gray's Inn Gardens Tag 631	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	34.0m	22.0m	125cm	Historic pruning wounds Minor dead wood <50mm	Fair	None recorded	Essential	Nov-23	05/04/2023		Massaria Inspection Record Clear of Massaria
93	Gray's Inn Square Tag 943	Building within or touching canopy Public access: high	Ulmus spp. (Elm spp)	6.0m	7.6m	50cm	Dense crown Low branches Raised roots/buttreassing	Fair	None recorded	No action required	Apr-25	05/04/2023		Wheeping Elm
94	Gray's Inn Square Tag 942	Public access: high	Gleditsia tricanthus (Honey Locust)	13.4m	12.0m	47cm	Minor dead wood <50mm Weak fork	Fair	<b>Crown lift and check cable brace.</b>	No action required	Apr-25	05/04/2023		<b>Cable bracing installed. Crown lift 4m and check cable brace.</b>
95	Gray's Inn Square Tag 941	Public access: high	Betula pendula (Silver Birch)	5.5m	6.0m	27cm	Low branches	Fair	None recorded	No action required	Apr-25	05/04/2023		
96	Gray's Inn Square Tag 944	Building within or touching canopy Public access: high	Prunus spp. (Cherry spp)	10.0m	13.4m	36cm	Dense crown Low branches	Fair	None recorded.	No action required	Apr-25	05/04/2023		

97	Gray's Inn Square Tag 948	Building within or touching canopy Public access: high	Betula pendula 'Youngii' (Youngs Weeping Birch)	10.0m	4.5m	36cm	Minor dead wood <50mm Raised roots/buttreassing	Fair	None recorded.	No action required	Apr-25	05/04/2023		
98	Gray's Inn Square Tag 946	Public access: high	Betula utilis (Himalayan Birch)	9.0m	8.0m	22cm	Minor dead wood <50mm	Fair	None recorded.	No action required	Apr-25	05/04/2023		
99	Gray's Inn Square Tag 947	Public access: high	Betula utilis (Himalayan Birch)	9.0m	8.0m	24cm	Minor dead wood <50mm	Fair	None recorded.	No action required	Apr-25	05/04/2023		
100	Gray's Inn Square Tag 945	Public access: high	Betula utilis (Himalayan Birch)	9.0m	8.0m	26cm	Minor dead wood <50mm	Fair	None recorded.	No action required	Apr-25	05/04/2023		
101	4 Field Court Tag 934	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	9.0m	3.0m	41cm	Decayed in historic pruning wound Decay in old pollard points Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)
102	4 Field Court Tag 936	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	5.0m	3.0m	38cm	Decayed in historic pruning wound Decay in old pollard points Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)
103	4 Field Court Tag 938	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	5.0m	2.0m	25cm	Decayed in historic pruning wound Decay in old pollard points Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)

104	4 Field Court Tag 939	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	6.0m	3.0m	33cm	Decayed in historic pruning wound Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)
105	4 Field Court Tag 940	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	6.0m	3.0m	33cm	Decayed in historic pruning wound. Decay in crown Decay in old pollard points Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)
106	4 Field Court Tag 937	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	5.0m	2.0m	28cm	Decayed in historic pruning wound Decay in old pollard points Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)
107	4 Field Court Tag 935	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	8.0m	3.0m	39cm	Trunk or branch cankers - at 2.5m on main stem signs of minor decay. Decay in old pollard points Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)
108	4 Field Court Tag 933	Building within or touching canopy Public access: high	Platanus x hispanica (London Plane)	9.0m	3.0m	41cm	Cavity - Located on North side of main stem approximately 1m high by 10cm wide. Hardwood decay. Decay in old pollard points Regrown pollard or topped tree	Poor	Complete removal and replant with new transplants 'Acer campestre'	Essential	Apr-25	05/04/2023		Complete removal and replant with new transplants 'Acer campestre' ( See Pics)
109	Gray's Inn Gardens Tag 921	Public access: high Shrub bed	Platanus x hispanica (London Plane)	14.0m	12.0m	32cm	None recorded.	Fair	None recorded.	No action required	Apr-25	05/04/2023		Semi mature

110	Gray's Inn Gardens Tag 926	Public access: high Shrub bed	Catalpa bignonioides (Indian Bean Tree)	8.0m	13.0m	34cm	Multi-stemmed	Fair	None recorded.	No action required	Apr-25	05/04/2023		Collapsed tree.
111	Gray's Inn Gardens Tag 927	Building within or touching canopy Public access: high Shrub bed	Eucalyptus spp. (Gum Tree spp)	16.5m	7.0m	57cm	None recorded.	Fair	None recorded.	No action required	Apr-25	05/04/2023		
112	Gray's Inn Gardens Tag 924	Building within or touching canopy Public access: high Shrub bed	Crataegus monogyna (Hawthorn)	11.0m	12.0m	38cm	Basal rot Basal and trunk suckers Die back whole. crown Main stem rot Large pruning wounds Weak fork	Poor	None recorded.	No action required	Apr-25	05/04/2023		Pollarded
113	Gray's Inn Gardens Tag 927	Building within or touching canopy Public access: high Shrub bed	Prunus cerasifera 'Pissardii' (Purple-leaved Plum)	15.0m	11.0m	47cm	None recorded	Fair	None recorded.	No action required	Apr-25	05/04/2023		
114	Gray's Inn Gardens Tag 928	Building within or touching canopy Public access: high Shrub bed	Ginkgo biloba (Maidenhair Tree)	13.0m	8.0m	27cm	None recorded.	Fair	None recorded.	No action required	Apr-25	05/04/2023		

115	Gray's Inn Gardens Tag 929	Building within or touching canopy Public access: high Shrub bed	Robinia pseudoacacia (False Acacia)	16.5m	12.0m	52cm	Fungal brackets at base see photograph	Poor	Dying back unstable in bank with extensive fungal brackets. Recommend complete removal ASAP.	Essential	Apr-25	05/04/2023		Remove and replant
116	Gray's Inn Gardens Tag 930	Building within or touching canopy Public access: high Shrub bed	Acer campestre (Field Maple)	11.0m	8.0m	29cm	Crossing branches	Fair	None recorded.	No action required	Apr-25	05/04/2023		
117	Gray's Inn Gardens Tag 931	Building within or touching canopy Public access: high Shrub bed	Morus nigra (Black Mulberry)	11.0m	8.0m	37cm	None recorded.	Fair	None recorded.	No action required	Apr-25	05/04/2023		
118	Gray's Inn Gardens Tag 636	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	26.0m	19.0m	118cm	Bulges in trunk	Fair	Major reduction undertook 2022	Essential	Nov-23	05/04/2023		Massaria Inspection Record Clear of Massaria
119	Gray's Inn Gardens Tag 635	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	26.0m	10.0m	118cm	Decay in upper crown/ Parakeet damage <b>Picus test shows decay continue to monitor and review</b>	Fair	Major reduction undertook 2022	Essential	Nov-23	05/04/2023	P5	Massaria Inspection Record Clear of Massaria



120	Gray's Inn Gardens Tag 634	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	34.0m	16.0m	134cm	Decay pockets	Fair	Major reduction undertook 2022	Essential	Nov-23	05/04/2023		Massaria Inspection Record Clear of Massaria
121	Gray's Inn Gardens Tag 633	Building within or touching canopy Grass Public access: high	Platanus x hispanica (London Plane)	33.0m	17.0m	132cm	Decay pockets	Fair	Major reduction undertook 2022	Essential	Nov-23	05/04/2023		Massaria Inspection Record Clear of Massaria
122	Gray's Inn Gardens Tag 632	Building within or touching canopy Grass Public access: high	Fraxinus spp. (Ash spp)	12.5m		28cm	Crossing branches Historic pruning wounds	Fair	None recorded	No action required	Nov-23	05/04/2023		
123	Gray's Inn Gardens Tag 630	Grass Public access: high	Platanus x hispanica (London Plane)	34.0m	8.0m	121cm	Decay pockets	Fair	Major reduction undertook 2022	Essential	Nov-23	05/04/2023		Massaria Inspection Record Clear of Massaria
124	Gray's Inn Gardens Tag 629	Grass Public access: high	Platanus x hispanica (London Plane)				Removed	Fair	Replanted		Apr-25	05/04/2023		

125	Gray's Inn Gardens Tag 628	Grass Public access: high	Platanus x hispanica (London Plane)	37.0m	20.0m	141cm	Decay pockets	Fair	Major reduction undertook 2022	Essential	Nov-23	05/04/2023	P6	Massaria Inspection Record Clear of Massaria
126	Gray's Inn Gardens Tag 627	Grass Public access: high	Platanus x hispanica (London Plane)	29.0m	20.0m	117cm	Decay pockets	Fair	Major reduction undertook 2022	Essential	Nov-23	05/04/2023		Massaria Inspection Record Clear of Massaria
127	Gray's Inn Gardens Tag 625	Grass Public access: high	Robinia pseudoacacia (False Acacia)	10.0m	8.0m	17cm	None recorded	Fair	None recorded	No action required	Nov-23	05/04/2023		
128	Gray's Inn Gardens Tag 624	Grass Public access: high	Robinia pseudoacacia (False Acacia)	10.0m	6.0m	19cm	None recorded	Fair	None recorded	No action required	Apr-25	05/04/2023		
129	Gray's Inn Gardens Tag 626	Grass Public access: high	Robinia pseudoacacia (False Acacia)	8.0m	6.0m	19cm	None recorded	Fair	None recorded	No action required	Apr-25	05/04/2023		
130	Gray's Inn Gardens Tag 637	Grass Public access: high	Catalpa bignonioides (Indian Bean Tree)	10.0m	7.0m	23cm	None recorded	Fair	None recorded	No action required	Nov-23	05/04/2023		
131	Gray's Inn Gardens	Grass Public access: high	Tilia spp. (Lime spp)	8.0m	8.0m	14cm	None recorded	Fair	None recorded	No action required	Nov-23	05/04/2023		



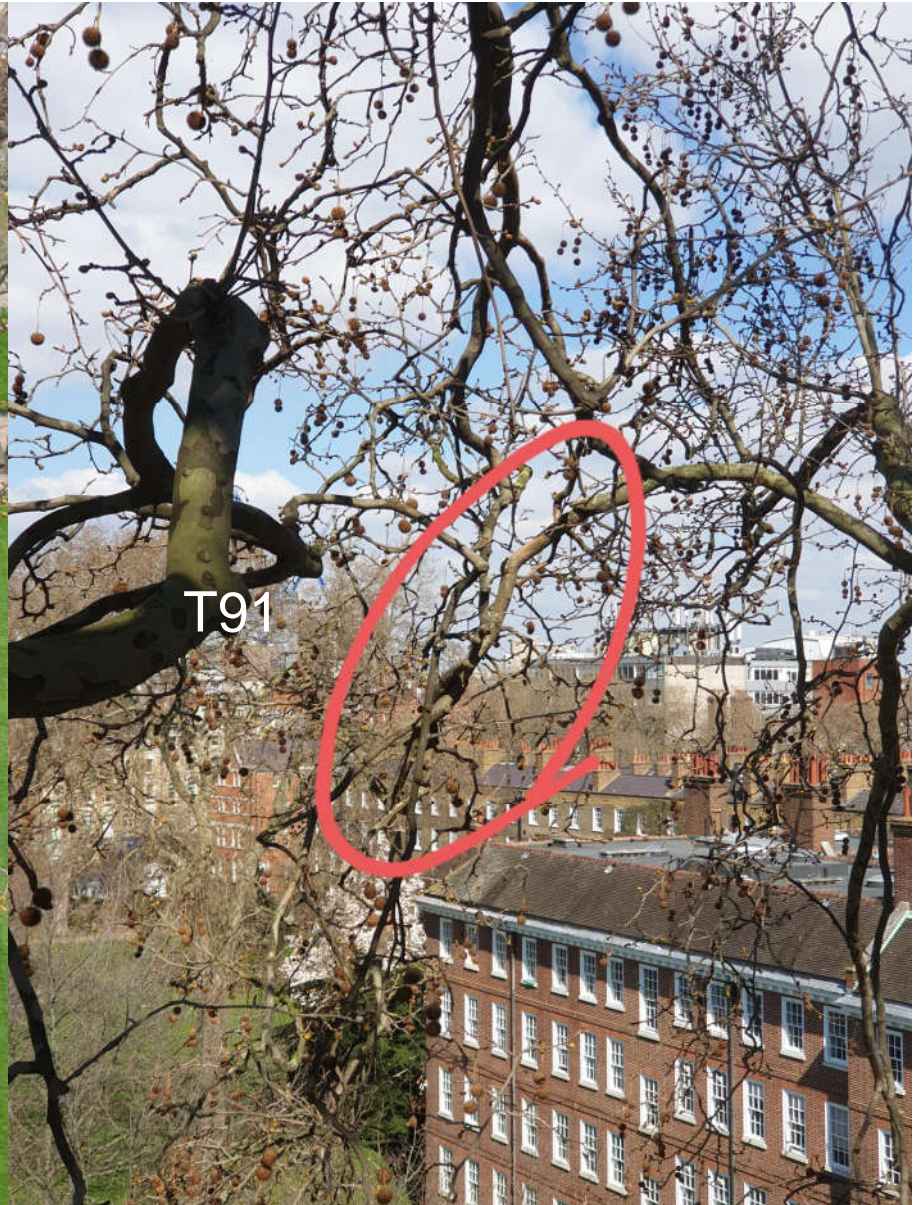
















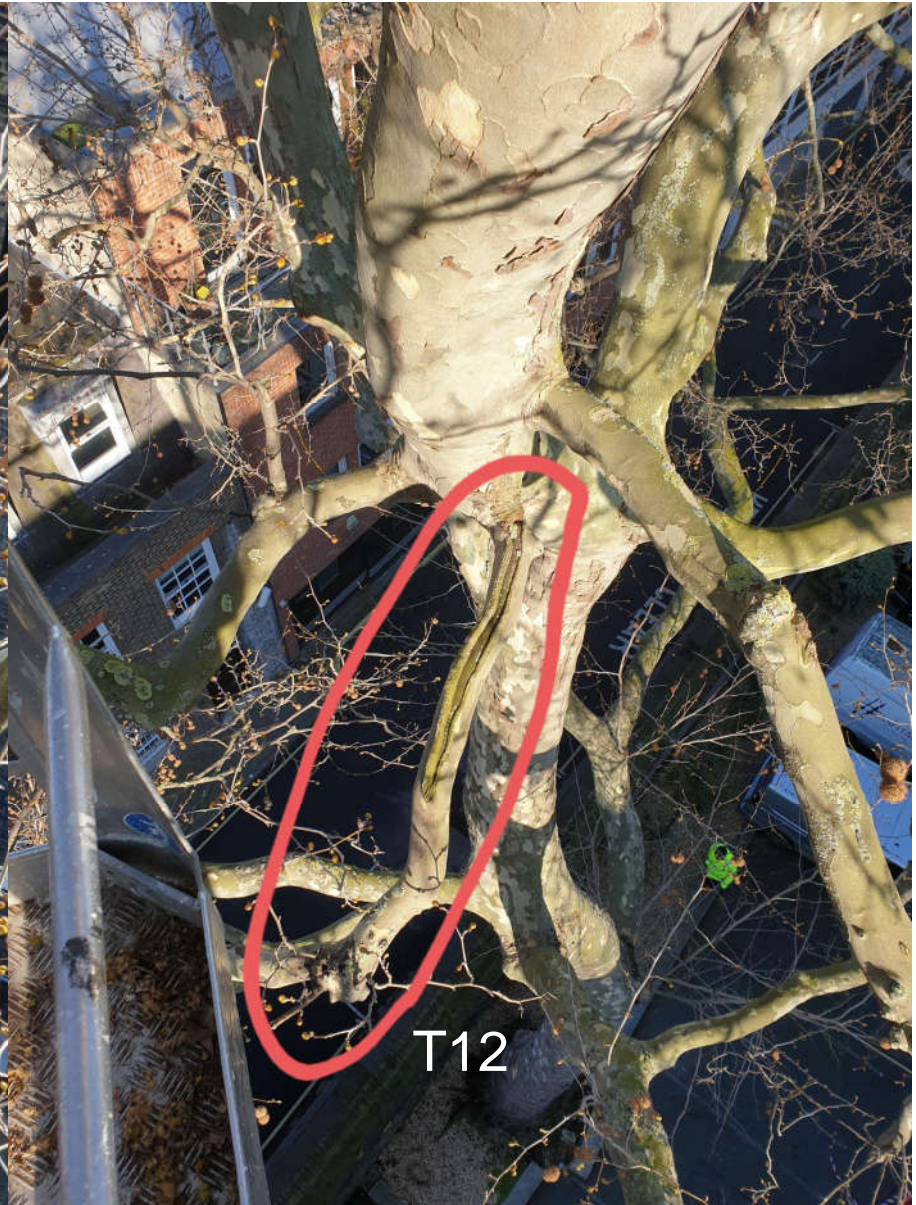






















## Top Lawn Compaction



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✓ 20230405\_115219.jpg



✓ 20230405\_115212.jpg



✓ 20230405\_115206.jpg



✓ 20230405\_113049.jpg



✓ 20230405\_112953.jpg



✓ 20230405\_111823.jpg



## Field Court Pollards: Cavities and Decay



✓ 20230405\_111715.jpg



✓ 20230405\_111619.jpg



✓ 20230405\_111520.jpg



✓ 20230405\_111430.jpg



✓ 20230405\_111327.jpg



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T115

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T52

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T59

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### **1.5 Picus Test Methodology:**

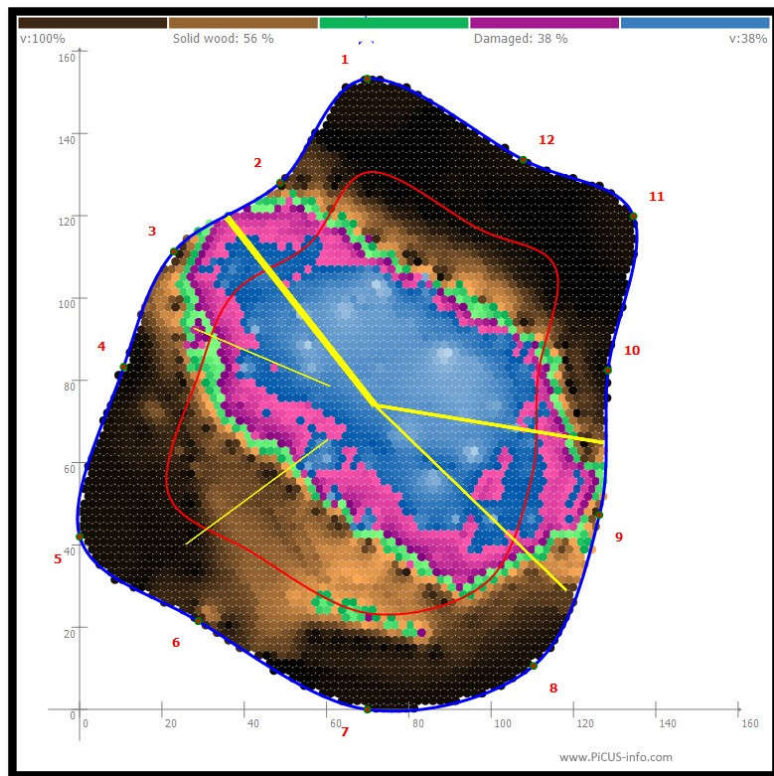
The method of decay detection is based on the fact that solid wood is a better sound wave conductor than wood that is decayed or structurally damaged. The Picus Sonic Tomograph consists of a set of sensors which are strategically placed around the area of the tree previously identified as potentially having decay or a structural fault. Each sensor is connected to a nail which is tapped through the bark into contact with the wood. This process is virtually non-invasive 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.

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, the opening angle of cavities and percentage of solid, decayed or altered wood can be measured by the computer.

Final analysis of the tomogram has been undertaken to see the following recommendation below. *Note: All recommended works should be undertaken in accordance with British Standard Institutes Recommendations for Tree Works B.S.3998:2010*

**1.6 Test T55 London Plane @ level: 40cms ground level approximately from ground level. Test point 1 at north orientation.**



*Figure 2 P1*

**Picus Analysis: Low readings decayed central column. Conclusion: Specimen recently major reduction. Recommendation: Continue to monitor.**

**Test T58 London Plane @ level: 40cms ground level approximately from ground level. Test point 1 at north orientation.**

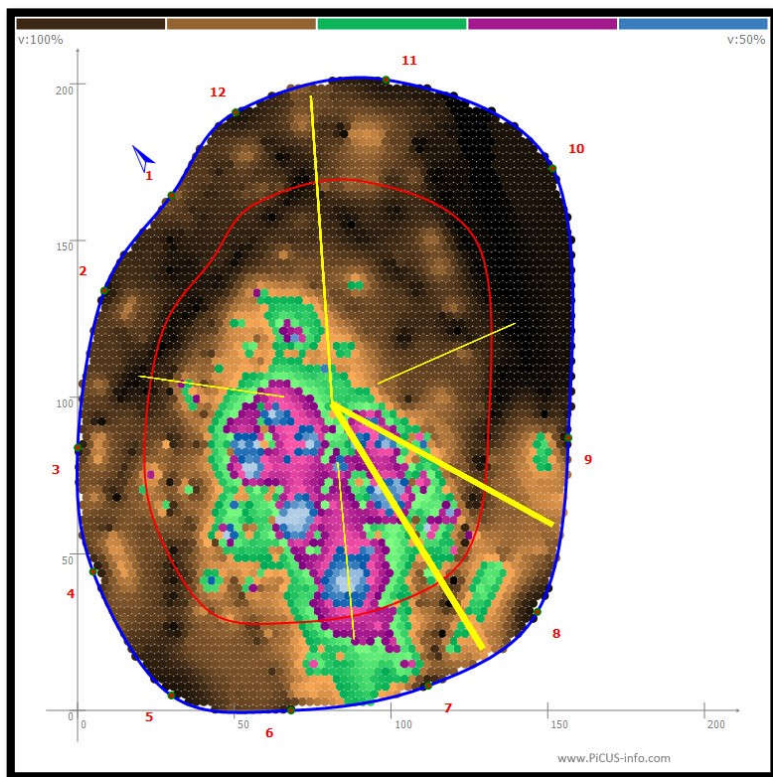


Figure 3 P2

**Picus Analysis: Low readings decayed central column. Conclusion: Specimen recently major reduction further remedial treatment recommended in the survey. Recommendation: Continue to monitor.**

**Test T59 London Plane @ level: 100cms ground level approximately from ground level. Test point 1 at north orientation.**

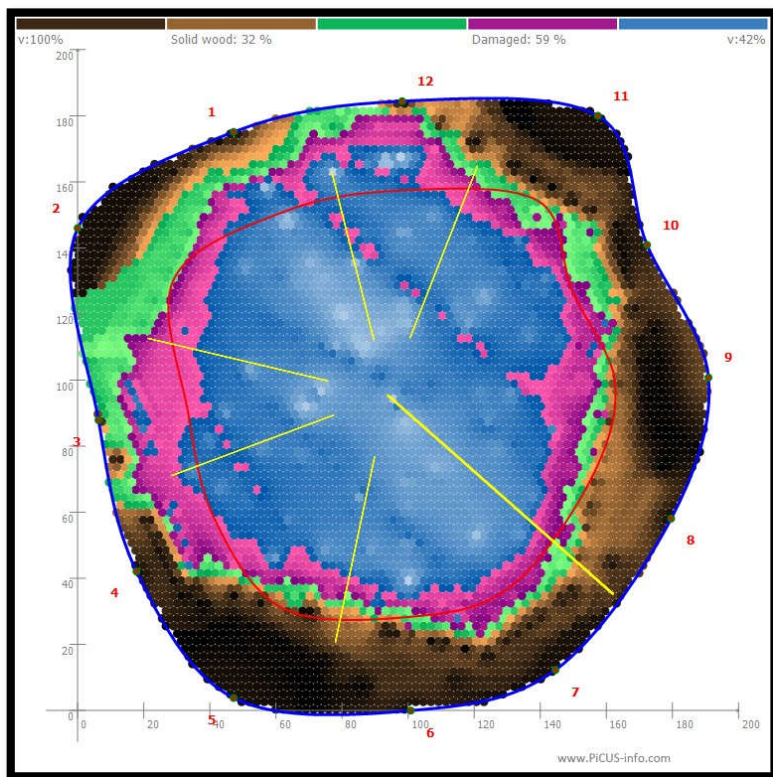


Figure 4 P3

**Picus Analysis: Low readings decayed central column. Conclusion: Specimen recently major reduction further remedial treatment recommended in the survey. Recommendation: Continue to monitor.**

**Test T91 London Plane @ level: 40cms ground level approximately from ground level. Test point 1 at north orientation.**

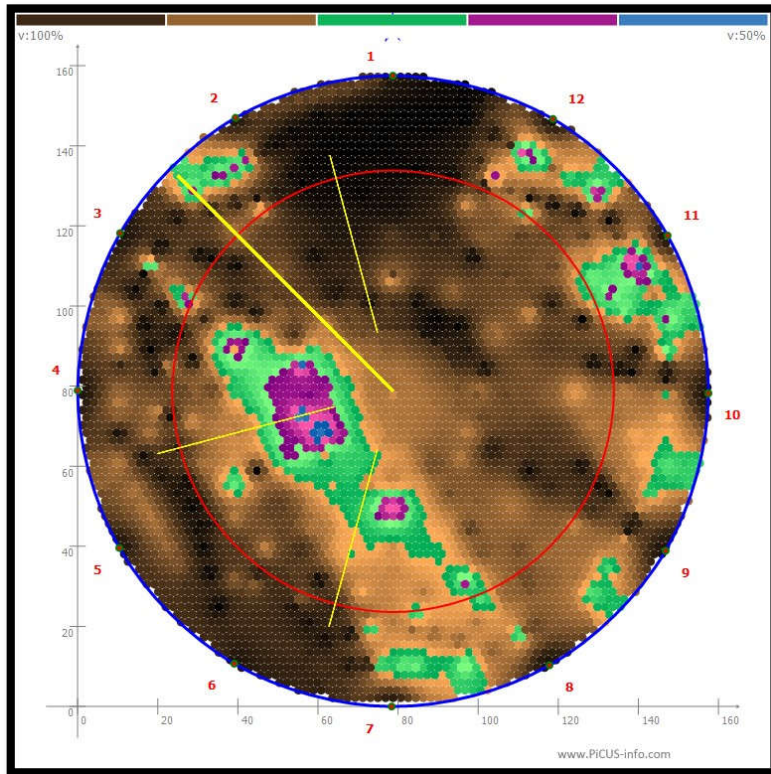


Figure 5 P4

**Picus Analysis: high readings indicating sound timber. Conclusion: Specimen has remedial treatment recommended in the survey.**  
**Recommendation: Continue to monitor.**



**Test T119 London Plane @ level: 60cms ground level approximately from ground level. Test point 1 at north orientation.**

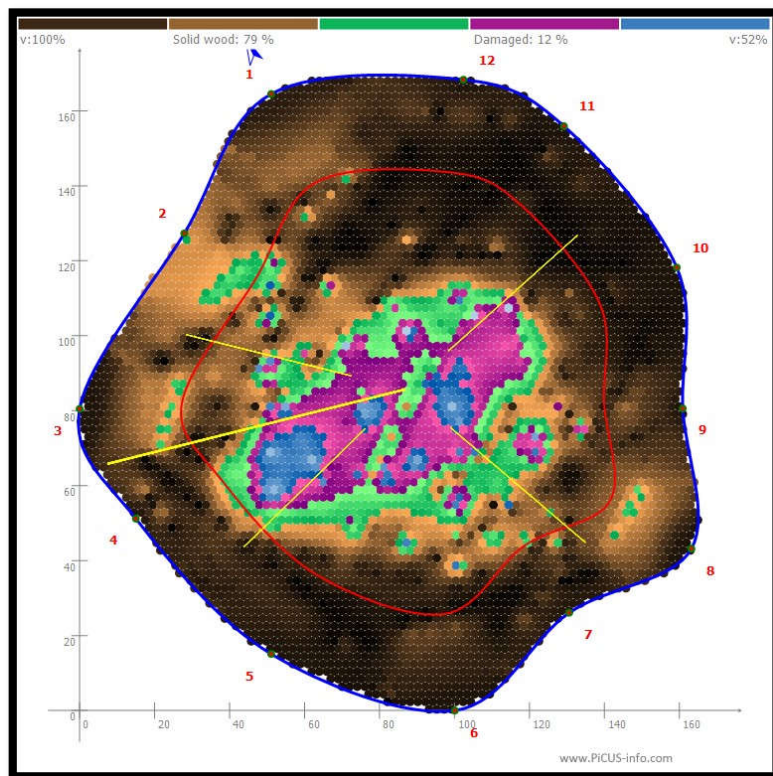


Figure 6 P5

**Picus Analysis: Low readings decayed central column. Conclusion: Specimen has recently major reduction further remedial treatment recommended in the survey. Recommendation: Continue to monitor.**

**Test T125 London Plane @ level: 40cms ground level approximately from ground level. Test point 1 at north orientation.**

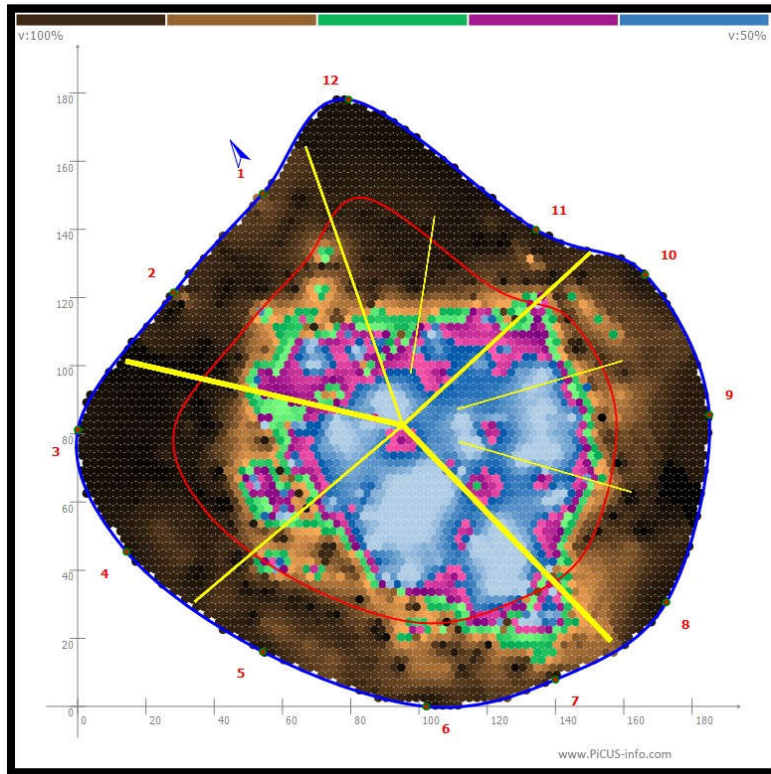


Figure 7 P6

**Picus Analysis: Low readings decayed central column. Conclusion: Specimen has recently major reduction further remedial treatment recommended in the survey. Recommendation: Continue to monitor.**



**Test T20 Red Oak @ level: 40cms ground level approximately from ground level. Test point 1 at north orientation.**

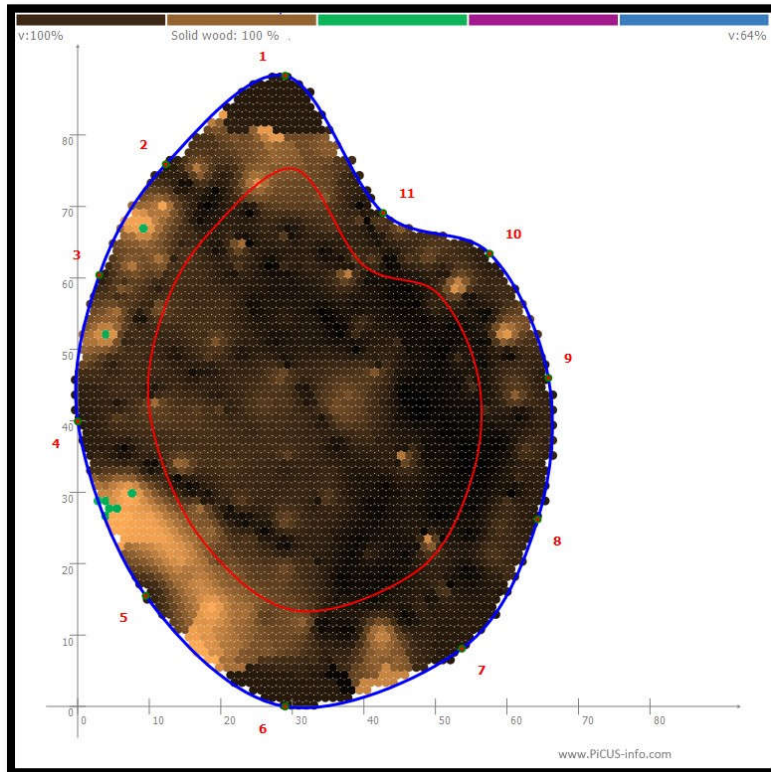


Figure 8 P7

**Picus Analysis: high readings indicating sound timber. Conclusion: Specimen requires further remedial treatment recommended in the survey. Recommendation: Continue to monitor fungal bracket at base.**

### **Picus Test Analysis:**

The measuring point readings give evidence of low to high velocities overall in the area of test representation showing altered timber. The tomographic images shown above has a percentage amount of altered timber. With reference to the 'colour chart see figure 2', the slower sonic speed of sound is represented by three bands of data representation blue/violet/white being the slowest altered/decayed timber, green being faster altered timber, brown being fast sonic-speeds solid timber.

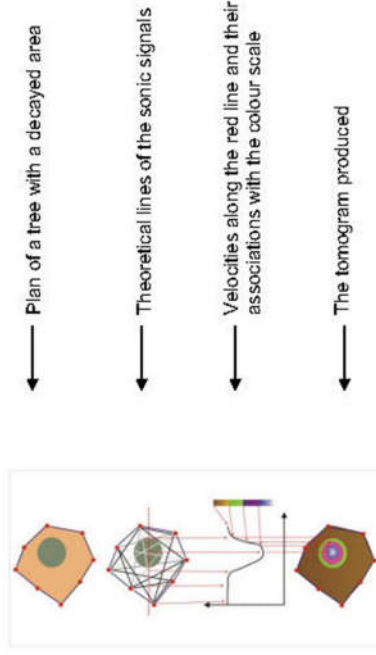
(see Picus sonic representation chart figure 2).

The resulting Picus tests are of acceptable limits in relation the altered timber. This ratio called a 'trunk ratio' TR (*reference Claus Mattheck*) has been calculated to be a guideline in terms of stability and rigidity of cylindrical structure. Although a debated theory in arboriculture in general terms the TR of 30% is an average.

### 7.13.1. Tomogram colours

To display different acoustic conductivity of wood, the PiCUS program uses set colours, assigning one colour to each point of the tomograph. Areas of high velocity are represented in black or dark brown. Areas of low velocity appear in violet, white or blue, and these are the areas that indicate problems. Green areas mark those sections which could not be classified as being either fast or slow, and these areas must be interpreted together with the overall damage.

The colour scale (black, brown, green, violet, blue, white) ranges from 100% velocity (brown) to the slowest velocity (blue). Colours are switched as specific special trigger levels to show the differences, as shown in the following sketch (not drawn to scale):



There are three main colour groups to be considered:

1. black / brown
2. green
3. violet / blue / white

The colours violet, blue, and white should be treated as a single class. There is a function to shut off the blue and white colours and present these areas in violet only.

#### Warning!

In order to read a tomogram correctly, you need **sound knowledge of trees and their diseases**, and you must be familiar with the **working principles of measuring instruments**. **DO NOT** tell a tree based solely on a tomogram reading. You must first analyse all possible reasons for slow acoustic conductivity, and you will have to apply different investigative methods as needed.

Unfortunately, the results of sonic measurements cannot give information about the exact type of structural loss in a tree. This means a tomogram does not tell us if the violet or blue areas are caused by a cavity, a crack, or by decay – it can only display the levels measured.

### **Consultant Mr Kim Gifford: Profile**

Prior to starting GTS Kim Gifford completed a 4-year apprenticeship in 1972 with the Royal Parks at Hampton Court Palace acquired City and Guilds Horticulture and Arboriculture. In addition to these qualifications Kim Gifford continued his professional development by attending seminars, conferences, studying for the professional diploma and foundation degree in Arboriculture. Further work experience during pre-business period included sub-contracting for Arb. Companies. Work as a lead Arborist for London Borough of Ealing and Arborist in Berlin Germany.

Kim Gifford t/a Gifford Tree Service started trading as a sole trader in 1980 and in 1985 became a partnership. The company specialises in all aspects of Arboriculture. From 2007 Kim Gifford now again, trades as a sole trader in his own right. In 1988 Kim Gifford became an approved contractor with Arboricultural Association after a comprehensive assessment and reassessments in 2002/2007 Kim Gifford served on committees of the Arboricultural Association for 10 years and became the National Chairman of the Arboricultural Association in 2001. Kim Gifford is now an honorary member of the Arboricultural Association.

Kim Gifford personally undertakes Picus sonic decay tests for local authorities and other Arboricultural contractors all over the Southern area of England. Kim Gifford owns the Picus equipment treetesting.com for 17 years and completed over 3000 tests, so he has considerable experience in the analysis of the tomographic images. He provides this service to complement other consultant reports, this is combined with my 48 years' knowledge in Arboriculture.

The whole Picus system has been updated and maintained to the recent Picus manufactures improvements. 2020 Upgraded to Picus 3 & Q74 Expert software plus Resistograph Micro drill IML Resi PD400 Pro software.

Kim Gifford has undertaken many Tree Surveys including Mortgage reports and BS5837 surveys to meet planning authorities' requirements during development proposals plus Tree Preservation applications and planning inspectorate appeal.

Kim Gifford was certificated recently by Lantra training awards with Professional Tree Inspection Certificate 30th November 2013 and Arboricultural Association Certificate BS5837 – Advanced Tree Assessment for Planning 4th May 2016.

Kim Gifford also provides quotations for recommended works, Risk Methods Statements, Health & Safety Policies, Site Specific procedures operation supervision and management services.