TREE HEALTH AND VISUAL TREE ASSESSMENT

OUR REF: JM/2009/R/dlm

DATE: Thursday 20th June 2013

CLIENT:	**The Honourable Society of Gray's Inn**
SITE ADDRESS:	Gray's Inn 8 South Square London WC1R 5ET
DATE/TIME OF VISIT:	Tuesday 14th and Friday 31st May 2013
PEOPLE PRESENT:	Mr J Mills
REPORT COMPLETED BY:	Mr Jason Mills.

SUMMARY

This report has been carried out to update the existing survey tables for all trees inspected during the previous survey in June 2012. Please note that all the trees included in this report have a metal tree tag fixed to their stem which will enable the trees on site to be easily cross-referenced with this report document, allowing for clear and effective undertaking of the recommendations made in this report, both currently and at any future time if deemed necessary. In addition the survey tables within this report gather together current recommendations given following previous climbing inspections and internal decay detection tests carried out since June 2012. This provides all current recommendations to be in one place simplifying future reference.

In reading and understanding the contents of this report it should be remembered that no tree can be deemed risk free. As with all things in the natural environment, they are subject to unpredictable forces such as extreme weather, effects of disease and man's influence upon them. We investigate every obvious and available facet of the tree's structure and its surroundings in reaching a conclusion as to a level of safety. These conclusions and recommendations seek to improve the level of risk that the trees may pose to one that could be considered acceptable, given the tree's location, site use, and owners' acceptance of the level of risk and the perception of its value to the environment. No tree can ever be considered completely hazard free and regular monitoring of the tree and its surroundings should be undertaken by the owner and their appointed specialist advisors, where necessary on a cyclic and recorded basis.

REPORT REFERENCES

As a progressive company, we keep abreast of research data relating to arboriculture. All observations, recommendations and works are based on current industry standard reference material and extensive FA Bartlett research findings derived from the company's own facilities at University of Reading UK and Charlotte in the USA. A selection of pertinent items is shown in Appendix 2.

REPORT LIMITATIONS

A Basic* tree risk assessment and tree health inspection were conducted on each tree identified in the scope-of-works. Trees not included in the scope-of-work were not inspected. Tree details are approximations made to a level that is required for the purposes of this report. These tree details include species identification, tree dimensions, age range and vigour entered within the report. Observations were made from the ground level, the trees were not climbed.

(*Basic assessment as described in the ISA BMP for tree risk assessment is a detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk and branches).

All tree risk assessments undertaken during surveys or inspections either on single trees or multiples of trees, use the methodology established by the International Society of Arboriculture, in the publication, "Best Management Practice – Tree Risk Assessment" (Smiley, Matheny and Lilly 2011) and in the F.A. Bartlett publication 'Tree Risk Management' (Smiley, Fraedrich, Hendrickson 2009), Principles of Tree Hazard Assessment & Management (HMSO Lonsdale 1999), Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines, 4th Edition (Harris, Clark and Matheny 2004). This format may be specifically detailed in text related to reports on single and smaller groups of trees but will be implicit for large scale surveys unless specified to the contrary by the client.

It is not possible to maintain trees free of risk, some level of risk must be accepted in order to experience the full range of benefits that trees provide. As such we reference the recently published document by the National Tree Safety Group (NTSG), Common sense risk management of trees (Forestry Commission 2011). This document provides guidance on trees and public safety in the UK for owners' managers and advisors.

REPORT REFERENCES (Continued…)

CARBON SEQUESTRATION PROFILE

Trees: The trees on this site will have a high or low ability to take in and lock up gaseous carbon, within their structures. The rate of which is dependant on their age and species. We have assessed the tree stock and can advise that trees T605, T616, T620, T621, T622, T624, T625, T626, T632, T637, T638, T643, T644, T645, T648, T651, T652, T653, T659, T661, T662, T663, T664, T665, T668, T672, T673, T676, T916, T918, T921, T922, T928, T930, T931, T941, T944, T945, T946, T947, T948, T949 and T950 are currently net absorbers of CO_2 from the atmosphere (representing 39% of the tree population on the site). The remainder of the trees on the site have grown beyond the stage at which they are net absorbers of CO_2 from the atmosphere (representing 61% of the tree population on the site). Their principal function now is as a long-term store for the carbon sequestered during their lifecycle and currently stored in their crowns, trunks and root systems.

Soils: Soils, particularly those with high calcium content are able to take in and store gaseous carbon. Intensive cultivation and movement can release CO_2 into the atmosphere negating the beneficial effects of soil carbon sequestration. All groundworks and landscaping should seek to achieve the desired outcome with as limited soil disturbance as possible. Our recommendations for tree retention, works and planting are made with this goal in mind.

Additional soil sampling and potentially soil calcium enhancement can be undertaken by The F.A. Bartlett Tree Expert Company should you wish to pursue this matter.

TREE PRESERVATION ORDER PROTECTION

All the trees on this site stand in a Conservation area administered by the London Borough of Camden. Under the Town and Country Planning Act 1990, section 211 you are required to give the Local Planning Authority (LPA) six weeks prior notice of any intention to carry out works to these trees. The purpose of this is to give the LPA an opportunity to consider whether a Tree Preservation Order (TPO) should be made in respect of these trees. We would be happy to make the application on your behalf should you wish to proceed with any works arising from this consultation.

PLEASE NOTE: Since October 2008, the level of detail and explanation of requests for works has increased but been made less prone to local interpretation of requirements. A new nationwide application form is now prescribed along with more detailed site mapping and the need to provide three copies of all forms to the Local Planning Authority.

TREE DETAILS

I visited the site on Tuesday 14th and Friday 31st May 2013, the delay in attending on the second day of surveying was implemented to allow time for further leaf development of the London Plane specimens.

I inspected 110 significant trees across the entire site, this represents an update on the previous survey carried out in June 2012. This updated report also includes re-iteration of recommendations given following previous climbing inspections and PICUS tests. This provides all current recommendations to be in one place simplifying future reference.

TREE EVALUATION

Each tree's root zone, root flare and buttresses were inspected and where necessary non-invasively probed. The stem, main scaffold limbs were visually inspected and non-invasively probed where required. The trees' crown structure main branch framework and shoot extension growth were inspected from the ground with the aid of binoculars. Any suspect limb or stem unions branch forks were also probed. Results from these assessments are included in the attached tables.

Additionally evidence of fungal activity, and disease was investigated and is if noted recorded.

FUNGAL, DISEASE OR INSECT, PATHOGENS

A fungal fruiting bracket considered to be that of the decay pathogen *Ganoderma spp* have been observed attached inside a cavity within the main stem of T629. The fungus causes a white rot in which lignin is selectively degraded but it can also cause simultaneous rot were both lignin and cellulose are broken down together. When extensively decayed this can lead to a brittle or ductile fracture that mainly occurs in the stem of host trees. (Schwarze. F. W. M. R, Engels. J, Mattheck. C, 'Fungal Strategies of Wood Decay in Trees', 2000, Springer-Verlag).

CONCLUSION

- The respective recommendations for each tree are included in the attached tree schedule.

*** Interpretations of Risk**	(As per Smiley, Fraedrich & Hendrickson 2009)
Critical Risk	Failure imminent: personal injury and/or property inevitable.
High Risk	Failure likely especially during storms: personal injury and/or property damage likely.
Moderate Risk	Failure possible especially during severe storms: personal injury and/or property damage possible.
Low Risk	Failure unlikely: personal injury and/or property damage unlikely.
**Dismantling/surgery risk	Weakened crown anchor points possible, require full risk assessment prior to tree works

RECOMMENDATIONS

The respective recommendations are included in the attached tree schedules.

These works are to be carried out in the timescales specified in the tenth column of the survey schedules below.

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**1**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
600	Opposite No. 1 Raymond Building	London Plane (*Platanus x Hispania)*	1073	28	10 13 5 6	MAT	Avg	Bulge observed at base of tree, suspected internal decay with adaptive growth response to compensate, otherwise tree is in adequate structural condition. (Recommendations given within AP1912R/tg 31.08.12 to crown thin by 20% has now been carried out on 1.06.13)	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+5
601	Opposite No. 1 Raymond Building	London Plane (*Platanus x Hispania)*	923	28	8	MAT	Avg	Crown has been raised in past, wounds are occluding. Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	0
602	Opposite No 2 Raymond Building	London Plane (*Platanus x Hispania)*	439	15	6	EM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+4
605	Opposite No 3 Raymond Building	London Plane (*Platanus x Hispania)*	275	14	5	SM	Avg	Poor tree form, leaning tree stem. Main stem divides into two stems at 3.5 metres. Crown above stem to east is dominant. Crown above stem to west overhangs third-party property.	Reduce crown to the west by up to 4.0 metres to clear third-party property and promote vertical growth of dominant stem, within 12 months. Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+20

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606	Opposite No.4 Raymond Building	London Plane (*Platanus x Hispania)*	1022	33	8 6 6 5	MAT	Avg	Tree is in adequate structural condition. Dead bark and decay observed on the west side of the tree stem/base – Not currently significant.	Re-inspection and re-evaluation of risk, within 12 months. Recommendation brought forward from report AP1912R/tg 31.08.12 Further internal decay testing to monitor the spread of decay, by summer 2015.	30	LOW/ MOD	+4
607	Opposite No. 5 Raymond Building	London Plane (*Platanus x Hispania)*	575	19	8	EM	Avg	Old pruning wounds observed at a height of 2 metres on tree stem are occluding. Tree is in adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+19
608	Opposite No. 6 Raymond Building	London Plane (*Platanus x Hispania)*	904	22	5 3 5 7	MAT	Avg	Roots at base have dislodged stone kerb, areas of dead bark and decay observed on stem/base. 3no girdling roots at base.	Re-inspection and re-evaluation of risk, within 12 months. Recommendation brought forward from report AP1912R/tg 31.08.12 Further internal decay testing to monitor the spread of decay, by summer 2015.	40+	LOW/ MOD	+9

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Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
609	Opposite Atkin Building	London Plane (*Platanus x Hispania)*	682	23	5 5 7 6	EM	Avg	Car parking on buttress roots of tree, dense tree crown, much secondary branch re-growth on lower tree stem, bulge observed at base of tree, suspected internal decay, adaptive growth response observed to compensate for this internal decay. No evidence of active fungal attachments.	Carry out PICUS test to establish extent of internal decay at base, within 12 months. Re-inspection and re-evaluation of risk, within 12 months.	30+	LOW/MOD	0
610	Opposite 1 Atkin Chambers	London Plane (*Platanus x Hispania)*	953	28	10	MAT	Ave	Direct vehicular damage to the top sides of exposed roots on the south side of the main stem.	Re-inspection and re-evaluation of risk, within 12 months. Install mulch in the 4.0 x 2.5 metre planter area to protect exposed roots.	40	LOW	0
611	At head of Pedestrian walk	London Plane (*Platanus x Hispania)*	778	24	7	EM	Avg	From 3 metres height the main stem leans approximately 20 degrees toward west; and at 8 metres has righted itself to vertical - insignificant.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+2
613	Adjacent Raymond Building's gate	London Plane (*Platanus x Hispania)*	790	26	12 10 8 12	EM	Avg	Tree is in adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months.	30	LOW	+2

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Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
614	Lawn outside Stone Chambers	Silver Maple *(Acer Saccharinum)*	788	17	8	EM	Avg	Direct scuff damage to top sides of exposed roots extending up to 3.5 metres from main stem; most likely mower damage	Consider installation of mulch to extend up to a 4.0 metre radius from the main stem, to prevent further direct damage to exposed roots. Re-inspection and re-evaluation of risk, within 12 months.	30+	LOW	+8
615	On bank R/O Atkin Building	London Plane (*Platanus x Hispania)*	1315	36	10	MAT	Avg	Old decayed pruning wound observed on the south side of the tree stem at a height of 10 metres, otherwise tree is in adequate condition. Climbing inspection carried out reference DM1913/R/ss 10.09.12. No remedial works recommended in that document.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+2
616	On bank R/O Atkin Building	Canadian Maple *(Acer rubrum)*	250	15	Av.5	EM	Avg	Minor deadwood observed in tree crown, stem girdling roots observed at tree base, co-dominant stems at a height of 2 metres on tree stem.	Sever stem girdling roots at tree base, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+7
617	On bank R/O Atkin Building	London Plane (*Platanus x Hispania)*	1270	37	9	MAT	Avg	Tree is forming a dense, secondary crown, otherwise in adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+3

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Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
618	Rear of Raymond Building on bank	London Plane (*Platanus x Hispania)*	1237	29	10 10 7 7	MAT	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+2
619	On bank, rear of Raymond Building	London Plane (*Platanus x Hispania)*	1335	30	8 13 14 10	MAT	Avg	Small area of dead bark observed on tree stem/base, minor deadwood observed in tree crown. Heavily weighted lateral on north-west side of main stem emanating at 15.0 metres above ground level. Otherwise tree is in adequate structural condition.	Reduce heavily weighted limb to north –east attached to main stem at 15.0 metres by up to 3.0 metres to reduce weight, within 12 months. Re-inspection and re-evaluation of risk, within 12 months.	40	LOW/MOD	+6
620	Lawn area.	Deodar Cedar *(Cedrus deodara)*	328	13	Av.4	SM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+20
621	North end of Raymond Building	False Acacia, (*Robinia pseudoacacia)*	194	13	Av.5	SM	Avg	5% deadwood observed in tree crown, currently insignificant.	Re-inspection and re-evaluation of risk, within 12 months.	30+	LOW	+6
622	At end of Raymond Building adjacent Theobalds Road	Hornbeam (*Carpinus betulus*)	331	17	Av.7	SM	Avg	Less than 5% minor deadwood observed in tree crown, currently insignificant.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+6

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Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
623	Rear of Raymond Building	London Plane (*Platanus x Hispania)*	1325	30	13 9 6 7	MAT	Avg	Small pocket of decay between buttress roots on east side of main stem, can be probed 200mm, not currently significant but will require on-going monitoring. Toadstools attached to wood chip approximately 1.2 metres to south-east side of main stem, identified visually as not Honey Fungus.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+3
624	Lawn area, north of Raymond Building	False Acacia, (*Robinia pseudoacacia)*	170	9	Av.4	YNG	Avg	Adequate structural condition, minor deadwood observed in the tree crown, currently insignificant.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+2
625	Lawn area, north of Raymond Building	False Acacia, (*Robinia pseudoacacia)*	157	9	Av.4	YNG	Avg	Adequate structural condition. 5% minor deadwood observed in the tree crown, currently insignificant.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	0
626	Lawn area, north of Raymond Building	False Acacia, (*Robinia pseudoacacia)*	172	7	Av.3	YNG	Avg	Adequate structural condition. 5% minor deadwood observed in the tree crown, currently insignificant.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+12

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Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
627	On upper bank Theobalds Road side	London Plane (*Platanus x Hispania)*	1230	25	10 8 9 10	MAT	Avg	Woodpecker hole with decay within lateral to south at approximately 14.0 metres above ground level.	Climbing inspection to assess the extent of decay at woodpecker hole 14.0 metres above ground level, within 6 months. Re-inspection and re-evaluation of risk, within 12 months.	10	LOW/MOD	+3
628	On upper bank Theobalds Road side.	London Plane (*Platanus x Hispania)*	1405	31	12 6 8 10	OM	Avg	Tree is in adequate structural condition. Vigorous epicormic growth. Apex of crown thinning by estimated 20%.	Re-inspection and re-evaluation of risk, within 6 months.	40	LOW	+3
629	On upper bank Theobalds Road side	London Plane (*Platanus x Hispania)*	948	28	10 8 8 8	MAT	Avg	Cavities to main stem between 2 and 3.0 metres. Fungal attachment thought to be Ganoderma spp within lower cavity.	Carry out PICUS internal decay testing in area of cavities up to 3.0 metres above ground level, within 3 months	40	LOW	+2
630	On upper bank Theobalds Road side	London Plane (*Platanus x Hispania)*	1115	30	11 7 10 6	MAT	Avg	Dense secondary epicormic growth observed on the lower tree stem. Dead buds observed in northern side of crown, representing estimated 2%. Tree is in adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+5

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Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
631	Adjacent service yard drive	London Plane (*Platanus x Hispania)*	1210	30	16 12 6 7	MAT	Avg	Leaning tree stem, basal swelling and fusing of buttress roots observed. Laterals to south and south-west sides of tree have been previously reduced over garden bench.	Re-inspection and re-evaluation of risk, within 12 months. Recommendation brought forward from report AP1912R/tg 31.08.12 Further internal decay testing to monitor the spread of decay, by summer 2015.	20	LOW/ MOD	0
632	Next to service road	Fraxinus spp.	223	11.5	Av.4	YNG	Avg	Adequate condition.	Crown lift to a height of 2 metres, within 6 months. Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+5
633	Within service yard	London Plane (*Platanus x Hispania)*	1274	30	6 14 8 8	MAT	Avg	Small area of dead bark on the northwest buttress root, basal swelling observed, this is a typical adaptive growth response to internal decay – Not considered to be currently significant.	Re-inspection and re-evaluation of risk, within 12 months.	20	LOW	+7
634	By Theobalds Road fence	London Plane (*Platanus x Hispania)*	1332	30	14 5 8 12	MAT	Avg	Decay evident at old pruning wound at approximately 10.0 metres above ground level on north side of main stem – Not currently significant, but will require monitoring.	Re-inspection and re-evaluation of risk, within 12 months.	20	LOW	+1

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Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
635	Theobalds Road lawn	London Plane (*Platanus x Hispania)*	1205	26	10 10 14 6	MAT	Avg	Crown has been recently reduced as previously recommended in June 2012 as a result of previous internal decay testing	Re-inspection and re-evaluation of risk, within 12 months. Maintain at reduced dimensions on a 3 to 5 year cycle. Recommendation brought forward from report AP1912R/tg 31.08.12 Further internal decay testing to monitor the spread of decay, by summer 2015.	20	LOW	+2
636	By compost heaps	London Plane (*Platanus x Hispania)*	1206	30	10 14 8 8	MAT	Avg	Longitudinal cracks up to 1.0 metre in length on undersides of lateral branch to north-west overhanging public carriageway and footway at approximately 14.0 metres above ground level. Dark brown staining evident surrounding cracks. Decay evident at wound adjacent point of lateral branch attachment on north-west side of crown.	Carry out climbing inspection to assess structural integrity of lateral to north-west overhanging public footway and carriageway, within 3 months. Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+0
637	Lawn area	Indian Bean Tree *(Catalpa bignonioides)*	188	9	Av.4	YNG	Avg	Tree is in adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+10

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Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
638	Lawn area	Deodar Cedar, (*Cedrus deodara).*	308	13	Av.4	SM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+22
639	Lawn area	Indian Bean tree (*Catalpa bignonioides)*	380	11	Av.6	EM	Avg	Tree has been reduced in height, resulting in 90mm diameter wounds, not currently significant. Tree is in adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+15
640	Lawn area	Indian Bean tree (*Catalpa bignonioides)*	459	9	Av.8	OM	Avg	Large area of dead bark observed on tree stem, tree has partially fallen over, currently stem rests on lawn, decayed limb observed on ground.	Re-inspection and re-evaluation of risk, within 12 months.	20-30	LOW	+2
641	In gravel area with seat around	London Plane (*Platanus x Hispania)*	1498	28	Av.13	OM	Avg	7 + Aerial roots on south and west sides of main stem. Ground levels appear to have been raised. Significant swelling to base of main stem indicative of underlying decay.	Carry out PICUS internal decay testing at tree base, within 6 months. Re-inspection and re-evaluation of risk, within 12 months.	40	LOW/ MOD	+6

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Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
642	On west lawn near main gate	London Plane (*Platanus x Hispania)*	1200	32	10 10 12 7	MAT	Avg	Woodpecker hole observed at a height of 19 metres on the north side of the tree stem, suspected internal decay at this location, area of dead bark and decay also observed at a height of 23 metres. Climbing inspection carried out September 2012.	Recommendation brought forward from report DM1913Rss 10.09.12 Carry out crown reduction of western co-dominant stem by 6.4 metres in height and 2 metres in crown spread. Re-inspection and re-evaluation of risk, within 12 months.	20	LOW/ MOD	+5
643	Main avenue	Red Oak, (*Quercus rubra)*	218	14.5	Av.4	SM	Avg	Previously crown raised to 4.0 metres, wounds have occluded. Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+8
644	Main avenue	Red Oak, (*Quercus rubra)*	302	14	Av.5	SM	Avg	Poor tree form, previously lost leading stem at a height of 6 metres. Previously crown raised to 4.0 metres, wounds have occluded. Vigorous secondary epicormic growth.	Re-inspection and re-evaluation of risk, within 12 months.	30+	LOW	+7
645	Main avenue	Red Oak, (*Quercus rubra)*	306	16.5	Av.5	SM	Avg	Previously crown raised to 4.0 metres, wounds have occluded. Less than 5% minor deadwood up to 5mm diameter. Minor secondary epicormic growth.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+7

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**12**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
646	Main avenue	Red Oak, (*Quercus rubra)*	406	20	Av.7	EM	Avg	Previously crown raised to 4.0 metres, wounds have occluded. Minor secondary epicormic growth.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+11
647	Main avenue	Red Oak, (*Quercus rubra)*	421	16	Av.6	EM	Poor	5% dieback and deadwood observed in tree crown up to 70mm diameter. Sparse crown. Moderate secondary epicormic growth.	Remove deadwood from tree crown, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	20	LOW	+6
648	Main avenue	Red Oak, (*Quercus rubra)*	273	16.5	Av.6	SM	Avg	Previously crown raised to 3.5 metres, wounds have occluded.	Re-inspection and re-evaluation of risk, within 12 months.	20-30	LOW	+5
649	Main avenue	Red Oak, (*Quercus rubra)*	442	18.5	Av.7	EM	Avg	Previously crown raised to 4.5 metres, minor decay at wounds that have occluded. 5% deadwood in crown to 40mm diameter.	Remove deadwood from tree crown, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+12
650	Main avenue	Red Oak, (*Quercus rubra)*	456	18.5	Av.7	EM	Poor	5% deadwood observed in tree crown to 40mm diameter. Thinning tree crown. Loose and dead bark on south and south-west sides of main stem close to ground level, measuring 350mm wide.	Remove deadwood from tree crown, within 1 month. Re-inspection and re-evaluation of risk, within 6 months for evidence of Honey Fungus.	20+	LOW	+6
651	Main avenue	Red Oak, (*Quercus rubra)*	296	14.5	Av.6	SM	Avg	Minor dead shoots and small branching up to 5mm diameter.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+7

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**13**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
652	Main avenue	Red Oak, (*Quercus rubra)*	133	7.5	Av.3	YNG	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	50+	LOW	+12
653	Main avenue	Red Oak, (*Quercus rubra)*	334	12	Av.5	SM	Avg	Less than 5% minor deadwood in crown to 20mm diameter. Crown raised to 3.5m, wounds are occluding. Moderate level of epicormic growth on inner branching.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+15
654	Main avenue	Red Oak, (*Quercus rubra)*	425	17.1	Av.6	EM	Avg	Crown raised to 4m, wounds are occluding. Crown predominates to north-west.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+6
655	Main avenue	Red Oak, (*Quercus rubra)*	366	15	Av.6	EM	Avg	Minor deadwood observed in tree crown.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+14
656	Main avenue	Red Oak, (*Quercus rubra)*	378	17	Av.6	EM	Avg	Localised dieback in upper tree crown.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+10

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**14**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
657	Main avenue	Red Oak, (*Quercus rubra)*	397	17.5	Av.6	EM	Avg	Crack on east side of main stem extends from ground level to 1.0m, bark local to crack is loose and flaky. Crack appears active. Dead loose bark and cambium dead on west side 200mm wide extends from ground level to 1.2m. Dried black ooze of 1.2-1.4m, thought to be bacterial wetwood. Sparse crown.	Remove deadwood from tree crown, within 1 month. Re-inspection and re-evaluation of risk, within 6 months in autumn.	10+	LOW	+11
658	Main avenue	Red Oak, (*Quercus rubra)*	350	16.2	Av.5	SM	Avg	Crown raised to 4m, wounds have occluded. Above average foliage density.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+5
659	Main avenue	Red Oak, (*Quercus rubra)*	287	17.3	Av.5	SM	Avg	Crown raised to 4m, wounds have occluded.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+6
660	Main avenue	Red Oak, (*Quercus rubra)*	334	15.5	Av.6	SM	Avg	Crown raised to 4.5m, wounds are occluding.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+7

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**15**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
661	Main avenue	Red Oak, (*Quercus rubra)*	135	9.2	Av.2	YNG	Poor	15% die-back in lower crown. Dead branches with aborted buds up to 30mm diameter, 2.5m in length.	Remove deadwood from tree crown, within 1 month. Take soil sample to assess nutrient and pH levels. Undertake regular watering of the tree during the summer months, to ensure that the soil in the tree root zone remains adequately hydrated. Re-inspection and re-evaluation of risk, within 12 months.	10	LOW	+2
662	Main avenue	Hornbeam	49	5.2	Av.0.75	YNG	Dead	Not tagged. Adequate condition.	Re-inspection within 12 months`	40+	LOW	First measure-ment

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**16**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
663	Main avenue	Red Oak, (*Quercus rubra)*	125	9	Av.2.5	YNG	Poor	Thinning tree crown. 3no branches dead in entirety up to 25mm diameter 2.5m in length.	Fell/ remove and grind out stump within 6 months. Re-plant with a new replacement winter 2013/ 2014 NB: Potential new replacement trees should be chosen from the following species that would best suit soil conditions on the site; English Oak, Sweet Chestnut and Princeton Elm.	10	LOW	+1
664	Main avenue	Red Oak, (*Quercus rubra)*	107	7.9	Av.2	YNG	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+12
665	Main avenue	Red Oak, (*Quercus rubra)*	300	10.3	Av.5	YNG	Avg	Poor tree form, old pruning wounds observed on the tree stem with minor decay evident.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+3
666	Main avenue	Red Oak, (*Quercus rubra)*	410	14.1	Av.6	EM	Avg	Crown raised to 4.5m, resulting in several (10+) wounds on main stem which are occluding.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+13
667	Main avenue	Red Oak, (*Quercus rubra)*	381	17.5	Av.5	EM	Avg	Dead branch on west side of main stem at 6m.	Remove dead branch at 6m within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+10

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**17**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
668	Main avenue	Red Oak, (*Quercus rubra)*	321	14.2	Av.5	SM	Avg	Thinning tree crown. Crown raised to 4m, wounds are occluding. 10% minor deadwood in crown to 25mm diameter.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+6
669	Main avenue	Red Oak, (*Quercus rubra)*	381	17.1	Av.6	EM	Avg	Minor deadwood observed in tree crown. Crown raised to 4.5m, wounds are occluding.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+5
670	Main avenue	Red Oak, (*Quercus rubra)*	416	16	Av.6	EM	Avg	Less than 5% minor deadwood in crown to 5mm diameter. Moderate levels of epicormic growth on inner branching.	Crown lift to a height of 2 metres, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+6
671	Main avenue	Red Oak, (*Quercus rubra)*	388	17	Av.7	EM	Avg	Less than 5% minor deadwood in crown to 5mm diameter. Moderate levels of epicormic growth on inner branching.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+10
672	Main avenue	Red Oak, (*Quercus rubra)*	281	14.5	Av.5	SM	Avg	Minor deadwood observed in tree crown, otherwise tree is in adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+12
673	Main avenue	Hornbeam	47	4.6	Av.0.6	Yng	Avg	New planting. Adequate condition.	Re-inspection within 12 months	40+	LOW	First measurement

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**18**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
674	Main avenue	Red Oak, (*Quercus rubra)*	333	14.5	Av.6	SM	Avg	10% deadwood in crown to 30mm diameter and 2 whole dead branches at 6m.	Remove deadwood from tree crown, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+7
675	Main avenue	Red Oak, (*Quercus rubra)*	323	14.5	Av.6	SM	Avg	5% deadwood in crown to 30mm diameter.	Re-inspection and re-evaluation of risk, within 12 months. Remove deadwood from tree crown within 1 month.	40+	LOW	+6
676	Main avenue	Red Oak, (*Quercus rubra)*	140	9.8	Av.3.5	YNG	Avg	Less than 5% minor deadwood in crown to 5mm diameter.	Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	+5
677	Adjacent main gates	London Plane (*Platanus x Hispania)*	1318	32	12 12 5 10	MAT	Avg	Stem girdling root observed at tree base on north west side.	Sever stem girdling root, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	40+	LOW	0
678	In bed adjacent to main gate	London Plane (*Platanus x Hispania)*	1657	32	4 16 14 7	OM	Avg	100 x 100 decay cavity at base on south side between buttress roots, can be probed 250mm – not currently significant but will require monitoring.	Re-inspection and re-evaluation of risk, within 12 months.	30+	LOW	0

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**19**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
915	Adjacent rear of 2 Gray's Inn square	Ornamental cherry (*Prunus kanzan*)	334	7	Av.5	EM	Avg	Heavily weighted, over-extended limbs (x2) on north-east and south-east sides at 2-2.5m.	Reduce over-extended limbs to north-east and south-east by up to 1.0m to reduce weight within 6 months. Apply a pure wood chip mulch to a depth of 5cm to 10 cm to create a mulch ring with a minimum radius of one metre, at the base of the tree, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	20	LOW	3
916	Lawn area	Crab variety *(Malus spp.)*	265	8	Av.4.5	EM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+9
918	Lawn area	Japanese Flowering Cherry *(Prunus spp.)*	318	11	Av.5.5	MAT	Avg	Witches broom on east side at 6m – insignificant. 5% die-back and aborted buds predominantly in lower crown.	Apply pure wood chip mulch to a depth of 5cm to 10 cm to create a mulch ring with a minimum radius of one metre, at the base of the tree, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+13

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**20**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
919	Adjacent corner of building in E lawn	London Plane (*Platanus x Hispania)*	1410	30	8 18 10 10	MAT	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	40	LOW	+9
920	On main lawn	London Plane (*Platanus x Hispania)*	929	22	7 14 7 4	MAT	Avg	Thinning tree crown, declining specimen tree, old pruning wounds observed in tree crown, wounds have partially occluded, heavily asymmetrical tree crown.	Undertake regular watering of the tree during the summer months, to ensure that the soil in the tree root zone remains adequately hydrated. Re-inspection and re-evaluation of risk, within 12 months. Reduce crown to east by up to 2m to balance.	10-20	LOW	+12
921	Lawn area	Magnolia, (*Magnolia sp)*	295	13	Av.6.5	MAT	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+6
922	Lawn area	Indian Bean tree *(Catalpa bignonioides)*	313	10	Av.7	OM	Avg	Old collapsed stem, supported on ground by metal bracket, minor deadwood observed in tree crown.	Re-inspection and re-evaluation of risk, within 12 months.	10-20	LOW	+2
923	Lawn area	Deodar Cedar *(Cedrus deodara)*	425	10	Av.5	SM	Avg	Recently crown raised.	Re-inspection and re-evaluation of risk, within 12 months.	50+	LOW	+22

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**21**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
924	Boarder shrub bed	Hawthorn *(Crataegus monogyna)*	382	11	Av.6	MAT	Avg	Deadwood observed in tree crown. Decay observed on main stems at a height of 1.5m to 2.0m, occupying estimated 30% of stem area.	Reduce crown to south and east by up to 1.5m in height and spread to reduce weight over decayed stems. Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW/MOD	+1
925	Boarder shrub bed	Purple Leaf Plum *(Prunus cerasifera autopurea)*	460	14	Av.5	MAT	Avg	Old limb failure between 5m to 6m on main stem. 1x dead branch above this point. Remaining crown comparatively dense.	Reduce crown by up to 1.5m in height and spread within 6 months. Remove deadwood from tree crown, within 1 month. Re-inspection and re-evaluation of risk, within 12 months.	10-20	LOW/MOD	+12
932	Field Court	London Plane (*Platanus x hispanica)*	395	7	Av.2	EM	Avg	Previously pollarded tree in adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months. Carry out cyclical re-pollarding, every 3 years.	10-20	LOW	+4

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**22**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
933	Field Court	London Plane (*Platanus x hispanica)*	395	8	Av.2	EM	Avg	Previously pollarded tree. Decay cavity on north side of main stem at 1.5m. Cavity measures 700 x 80mm and occupies 50% of stem cross section residual wall 80mm wide. Significant decay in limb to south estimated to be in excess of 50%.	Remove limb to south with decay and establish new pollard points at approximately 5m within 12 months. Re-inspection and re-evaluation of risk, within 12 months.	10-20	LOW	+3
934	Field Court	London Plane (*Platanus x hispanica)*	390	7	Av.2	EM	Avg	Previously pollarded tree, minor old pruning wounds on tree stem and scaffold limbs.	Re-inspection and re-evaluation of risk, within 12 months. Carry out cyclical re-pollarding, every 3 years.	10-20	LOW	+3
935	Field Court	London Plane (*Platanus x hispanica)*	373	7	Av. 2	EM	Avg	Previously pollarded tree. Canker at 2.5m with decay can be probed 150mm. Not currently significant but will require monitoring.	Re-inspection and re-evaluation of risk, within 12 months. Carry out cyclical re-pollarding, every 3 years.	10-20	LOW	+3

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**23**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
936	Field Court	London Plane (*Platanus x hispanica)*	375	7	Av.2	EM	Avg	Previously pollarded tree, dead bark and area of decay observed on upper stem and scaffold in centre of crown..	Re-inspection and re-evaluation of risk, within 12 months. Carry out cyclical re-pollarding, every 3 years. Inspect limb within central crown for structural integrity at time of next pollard works within 2 years.	10-20	LOW	+5
937	Field Court	London Plane (*Platanus x hispanica)*	278	8	Av.1	EM	Avg	Previously pollarded tree, old pruning wound on stem at a height of 2.5 metres not currently significant.	Re-inspection and re-evaluation of risk, within 12 months. Carry out cyclical re-pollarding, every 3 years.	10-20	LOW	+6
938	Field Court	London Plane (*Platanus x hispanica*	248	7	Av.1	EM	Avg	Previously pollarded tree, old pruning wounds observed on tree stem.	Re-inspection and re-evaluation of risk, within 12 months. Carry out cyclical re-pollarding, every 3 years.	10-20	LOW	+2

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
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Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
939	Field Court	London Plane (*Platanus x hispanica)*	310	8	Av.1	EM	Avg	Previously pollarded tree, old pruning wounds observed on tree stem with decay present. Significant decay at pollard point on pole to south-east side at 4m.	Establish new pollard point in good wood for pole on south-east side at 4m, within 6 months. Re-inspection and re-evaluation of risk, within 12 months. Carry out cyclical re-pollarding, every 3 years.	10	LOW/MOD	+2
940	Field Court	London Plane (*Platanus x hispanica)*	317	9	Av.2	EM	Avg	Previously pollarded tree. Minor decay at pollard boles.	Cyclical re-pollarding, every 3 years. Re-inspection and re-evaluation of risk, within 12 months.	10+	LOW	+1
941	Gray's Inn Square	Silver Birch *(Betula pendula)*	231	5.2	Av.4	EM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+14
942	Gray's Inn Square	Honey Locust *Sunburst*	400	17	Av.8	EM	Avg	Adequate structural condition.	Re-inspection and re-evaluation of risk, within 12 months.	30+	LOW	+7
943	Gray's Inn Square	Weeping Elm *(Ulmus glabra camperdownii)*	445	5	Av.4	EM	Avg	Adequate condition, minor deadwood observed in the tree crown. Crown encroaching on car park.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+18

TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**25**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
944	Gray's Inn Square	Portugal Laurel *(Prunus lusitanica)*	218	3	Av.4	EM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+13
945	Gray's Inn Square	Paper Birch *(Betula papyrifera)*	157	9.5	Av.3.5	SM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+9
946	Gray's Inn Square	Paper Birch *(Betula papyrifera)*	168	10	Av.3	SM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+7
947	Gray's Inn Square	Paper Birch *(Betula papyrifera)*	150	10	Av.3	SM	Avg	Adequate condition.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+11
948	Gray's Inn Square	Silver Birch *(Betula pendula)* Weeping	324	5	Av.5	EM	Avg	Minor deadwood observed in tree crown. Crown encroaching on car park.	Re-inspection and re-evaluation of risk, within 12 months.	20+	LOW	+33
949	South Square	Chinese Privet, (*Ligustrum lucidum Variegata)*	237	8.2	Av.3.5	EM	Avg	Adequate condition. Historically crown raised leaving small occluding wounds. Crack in slab adjacent main stem not currently significant.	Re-inspection and re-evaluation of risk, within 12 months. Cracked slab may be repointed for temporary fix but will require replacement.	20+	LOW	+8

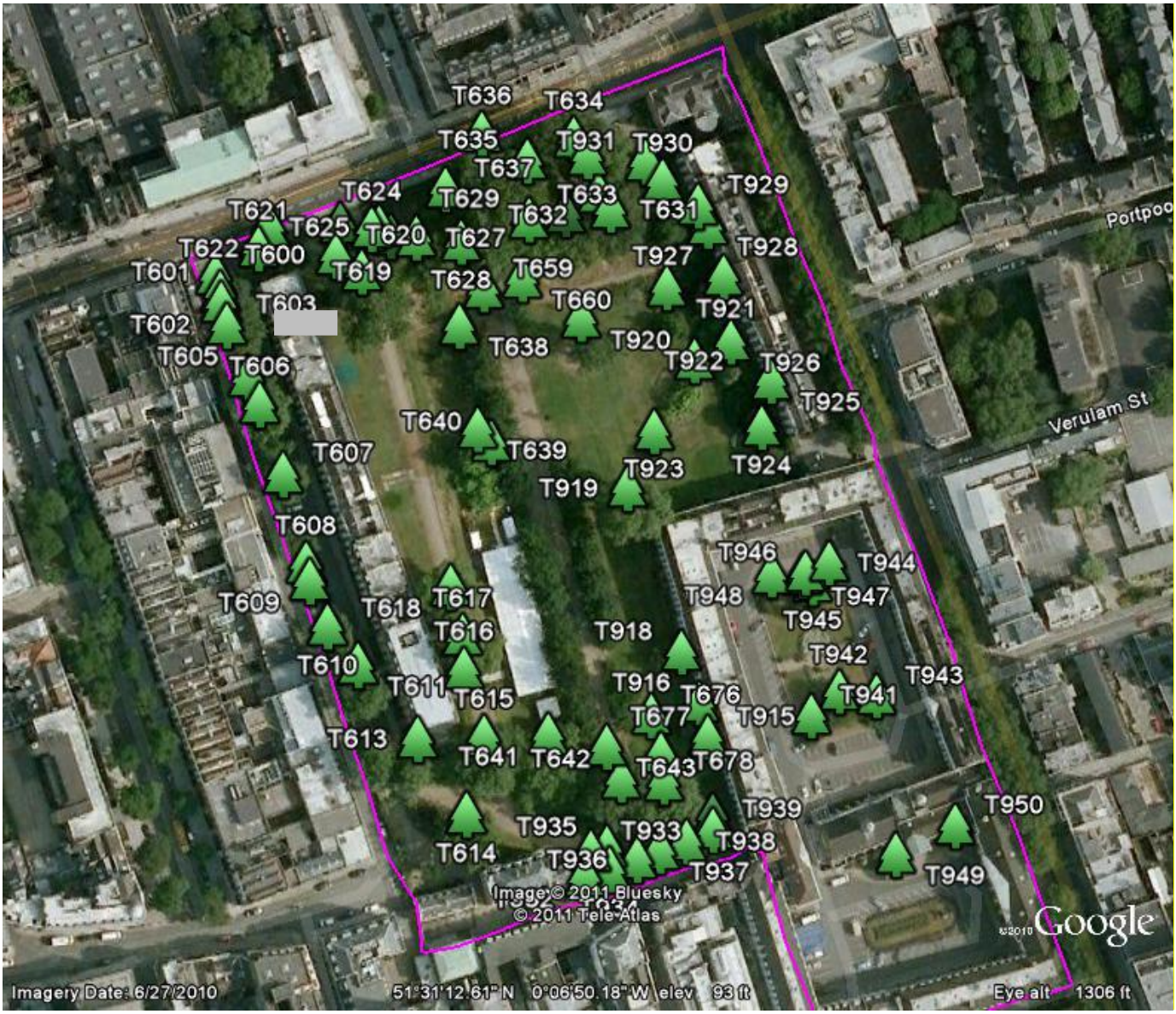
TREE CONDITION SURVEY

Client:	**The Honourable Society of Gray's Inn**	***Report No:***	**JM/2009/R/dlm**
Completed by:	**Mr J Mills**	***Sheet No:***	**26**
Site:	**Gray's Inn, London, WC1R 5ET**	***Date of Survey:***	**14.5.13 & 31.5.13**
Trees Tagged:	**Yes**	***Weather:***	**Cloudy with light rain 14.5.13 Bright and clear 31.5.13**

Tree No.	Location	Species	DBH (mm)	Ht (m)	Cr. Spr. (m) N E S W	Age	Vig.	Condition	Works Required	ULE	Risk Factor	Annual Growth Increment (mm)
950	South Square	Chinese Privet, (*Ligustrum lucidum Variegata)*	145	6	Av.3	EM	Avg	Adequate condition. Exposed desiccated roots surround base.	Re-inspection and re-evaluation of risk, within 12 months. Cover exposed roots within planter with woodchip mulch.	30+	LOW	+4

Tree numbers refer to site plan and tree tags attached to the trunk of the trees on the site. **Species** – tree species giving English common name and scientific name in italic text below. **Ht** Height measured using a clinometer in metres (m); **Branch spread** is crown spread to the four cardinal compass points, measured in metres (m); **DBH** is stem diameter measured at 1.5 metres above ground level on the tree stem, recorded in millimetres (mm); **Age** is assessed as young (**Yng)** up to 1/5 of trees life-cycle, semi-mature **(SM**) up to 2/5 of trees life-cycle, early mature **(EM**) up to 3/5 of trees life-cycle, mature **(MAT)** up to 4/5 of trees life-cycle and over mature **(OM)** up to 5/5 or above of trees life cycle. **Vig** is described as either average (Avg) for species or Poor or Dead. **ULE** Useful life expectancy is an objective assessment of the remaining life expectancy of the tree, estimated in years **Risk Factor** = is defined as being the overall risk that the tree in question poses to either person(s) and or property, this is a qualitative assessment made by the tree inspector, with trees being classified into three distinct categories either LOW, MODERATE and HIGH. **Annual growth increment** is a measure of the annual growth rate of the tree, expressed as the increase in trunk diameter over the period since the tree was last inspected and measured. This is measured at a height of 1.5 metres on the tree stem and is compared with the same measurement taken at the last inspection; the increase is measured in millimetres (mm).

INDICATIVE SITE PLAN



Indicative site plan showing the approximate locations of the trees that are the subject of this report. Please note that the ID numbers shown on the plan correspond to the metal tree tags that have been fixed to the trunk of each individual tree.

I trust this report is helpful to you. Should you have any queries or require further advice, please do not hesitate to contact me.

REPORT CLASSIFICATION:	**Tree Health and Visual Assessment Tree Report**
REPORT STATUS:	Complete
REPORT COMPLETED BY:	**Mr Jason Mills** *Arboricultural Consultant*
***REPORT REVIEWED BY*:**	**Mr Lee Smith** Cert Arb Level 4 (ABC) *Junior Arboricultural Consultant*

REPORT COMPLETED BY: Jason Mills, Consultant  Date: 17/06/2013

REPORT REVIEWED BY: Lee Smith, Consultant:…  Date: 18/06/2013