Arboricultural Assessment

30 Bramshill Gardens, London NW5 1JH

Report Reference: 209653r_AA001

Client: Simon Mohun

Report produced by Paul Zepler: FdSc Arb, NC Arb, LANTRA PTI, VALIDATOR Arb

Date of inspection: 28/04/2024

Date of final report production: 28/04/0204

Contact: info@thorstrees.co.uk

Statutory Controls		Mitigation	
TPO	No	Owner	30
TPO potential	No	Domestic 3rd Party	No
Cons. Area	Yes	Local Authority Intervention	No
SSSI	No	Other	No
Local Authority: Camden			

Table of Contents:

Arboriculture assessment

1.0 Executive summary

1.1 The report has been produced to formally detail an investigation into the physiological and biomechanical condition of a Poplar (T1) within the rear garden of 30 Bramshill Gardens NW5. Recommendation relating to a site survey undertaken 28/04/20243 will be supplied in order to mitigate any foreseeable risk associated with the condition of T1. All tree related details can be found within APPENDIX A of this document.

This investigation has produced a conclusion without prejudice towards any desired client-based conclusion.

This investigation will include:

- The site context and observation.
- Tree survey data obtained during a site inspection undertaken 28/04/2024 where the weather was wet, breezy, and chilly.
- Analysis of data.
- Discussion and conclusion of findings.
- A recommended cyclical maintenance regime

1.2 Conclusions will be based upon analysis of data obtained during the site inspection which will be referenced against good practice standards.

Inspection was conducted at ground level, including a visual and tactile examination of external features. The principal objective of this survey is to identify any the potential for impact to arise and offer recommendations to aid in its avoidance.

Visual assessment, in accordance with accepted arboricultural practice, was based on apparent vitality (leaf cover, extension growth), bud production, presence of deadwood and die back, fractured, and detached limbs, evidence of excessive basal movement, bacterial and/or fungal infection and external indications of stem and basal decay likely to affect the structural condition of the tree.

Trees and shrubs are living organisms whose health and condition can change rapidly. The health, condition and safety of trees should be checked on a regular basis, preferably at least once a year, and conclusions and recommendations are only valid for a period of 1 year. These periods of validity may be reduced in the case of any change in conditions in proximity to the trees or buildings. This assessment of the level of risk posed by trees, either individually or collectively is based on the available evidence, current published works, recognised professional opinion and my experience in these matters.

info@thorstrees.co.uk

1.3 Recommendations will be based upon site information obtained 28/04/2024 and will consider all relevant wildlife and conservation legislation. Categorisation of trees under BS5837 (trees in relation to construction and demolition) will consider stem diameter as a means to judge age and represent condition of the individual trees where possible. Proximity to structure and referring to NHBC 4.2 (Building near trees) will determine if initiative-taking measures are required to manage the foreseeability of property damages to arise, from which recommendations to manage the potential will be applied.

1.4 All data that has been analysed in order to produce this report can be found within the appendices of this document.

2.0 Introduction

2.1 Paul Zepler has produced this report.

I am a professional within the arboricultural industry in relation to multiple disciplines within the sector. I currently hold the qualifications of FdSc arb, NC/arb, VALID Arb and LANTRA PTI. I have also worked as an Arboriculture Officer for seventeen years, consulted for eight years and an additional four years working in the industry in a practical capacity.

CONTACT DETAILS: info@thorstrees.co.uk / 07435251887

3.0 Local authority constraints

3.1 There are no local tree preservation orders associated with T1, though the site is within the Dartmouth Park conservation area: (Camden Maps).

3.2 Camden 'Local Planning Authority' (LPA) will need to be informed of any tree works operation that are proposed within the property boundary of 30 Bramshill Gardens NW5. If recommendations are made within this report this can then be submitted as

part of that notification to: Tree and Landscape Officer (Camden Council) | Cindex or though the planning portal: Applications - Applications - Planning Portal

4.0 Professional Standard References

4.1 I have referred to the following standards and function as a framework to ensure good practice and tree evaluation in relation to trees throughout this project:

4.2 British Standard 5783:2012 Trees in relation to Design, Demolition and Construction – Recommendations.

4.3 British Standard 3998:2010 Tree works recommendations for pruning recommendations.

4.4 NHBC 4.2 (National Housing Building Council) Chapter 4.2 Trees in relation to structure

4.5 The Wildlife and Countryside Act 1981 for wildlife protection law and good practice.

4.6 The Environmental Protection Act 1990 as a point of reference for noise pollution constraints.

4.7 Countryside and Rights of Way Act 2000 as point of reference for the protection of bats due to the documented presence of cavities within the tree survey.

4.8 Natural Environment and Rural Community's act 2006 as point of reference for the protection of bats due to the documented presence of cavities within the tree survey.

5.0 Inspection summary

5.1 T1 has some notable biomechanical issues that require works to alleviate the risk of failure (APPENDIX A).

5.3 T1 has some physiological concerns that require consideration when applying a tree works prescription (APPENDIX A).

5.4 T1 is situated within a conservation area and as such requires notification of works to the LPA.

5.5 T1 is within the NHBC 4.2 area of influence (APPENDIX A).

5.6 30 Bramshill Gardens pre-dates the foundation requirements set NHBC4.2 to manage the water extraction potential of a high-water demanding tree.

5.7 T1 has not received any significant historic pruning works.

5.8 No roosting or nesting wildlife was identified within T1 during this survey (4.5, 4.6, 4.7, 4.8.

This site is situated within a London Clay zone (APPENDIX D) and as such consideration need to be given to manging the potential for property damages to arise as a result of vegetative water extraction.

6.0 Management recommendations

6.1 Inspection regime overview:

To be in keeping with the occupier's duty of care and to ensure the safe usage of space to owners and visitors alike this site should receive a full tree survey no less frequently than once every three years (SEE APPENDIX B).

6.2 Cyclical maintenance overview:

T1 requires a reduction to alleviate the weight exerted upon its Lowe stem and root crown cavity (for works specification please see APPENDIX A). This should be applied no less frequently than once every three years.

7.0 Conclusions

7.1 The risk of failure of this specimen is high, and its location puts the risk of negative impact well beyond the tolerable level required to allow for this to happen of its own accord. The surrounding area has a high concentration of dwellings and amenity space, meaning that should failure occur of then this would result in the damaging of property.....or more seriously the injury to person. The species is known for stem and root ball failure especially during periods of high winds. It is also known for natural branch abscission as part of a reproductive model, which through the process of natural evolution has evolved as a brittle aspect to the structural wood throughout the system.

The column of decay and lower void in the stem is at a pivotal point of wind stress, it being on the lower easterly side, and this specimen is above all other trees in the area opening it up to a greater wind sail than it could continually tolerate. It is for this reason that the prescription as stated within APPENDIX A has been recommended to mange the potential for tree failure.

7.2 All tree works standards should be in keeping with BS 3998.

APPENDICES

info@thorstrees.co.uk

APPENDIX A: TREE DATA / SCHEDULE

FULL TREE SURVEY INSPECTION DATE 28/04/2024 – ATTENDED BY: PAUL ZEPLER														
MAP ref	Species	Location	DBH (mm)	Height (m)	Radial crown spread (m)	Age	SULE	Overall Condition	Comments	BS5837 CAT	Physiological / Biomechanical Risk category	NHBC 4.2 Calculations	Recommendation	Priority level
T1	*Lombardy Poplar (Populus nigra italica)*	*Rear garden 30 Bramshill gardens*	*1012*	*22.8*	*0.8 /1.2/1.1/1.1*	*Mature*	*40-80 (with initiative-taking management as described in the recommendation section)*	*Good*	*Non-native black Poplar, Ivy clad on lower stem, significant cavity on southern side of stem, no root ball, no heartwood from ground level to 2m*	***B*** *(A if issues were not present)*		*HIGH (area of influence = mature height x 1.25) Distance from property = 28.7m / area of influence = 31.25m.* ***T1 IS WITHIN THE NHBC 4.2 AREA OF INFLUENCE***	*Remove Ivy. Reduce height by 8m bringing below adjacent tree line and below wind-sail effect. This will also alleviate the weight placed upon column of decay and lower stem void. Reduce no less frequently than once every three years*	*2*
DBH = Diameter @ breast height 1.3m / SULE = Safe Useful Life Expectancy / BS5837 CAT = Category nominal assigned to communicate trees retention suitability found within the BS5837 document / Risk category is in relation to the physiological and/or biomechanical condition of the tree (SEE APPENDIX B) / Priority SEE APPENDIX B														

Anatomy	Condition	Comments	Biomechanical concern	Physiological concern
Crown	Good	Good bud production and leaf coverage. Tallest specimen in area. Exposed to westerlies. Species naturally prone to high volume of abscission (this is actually a reproduction method employed by Poplar). Wood is naturally brittle.	Y	N
Crown break	Fair	Multi fastigiate stem leaders, included bark, a point of historic reduction or abscission.	Y	N
Upper stem	Fair	Bacterial weep from upper edge of stem cavity	N	Y
Lower stem	Poor	Column of decay stretching from root-ball up the stem for 2m. Hollow intervals.	Y	Y
Root crown	Poor	Root ball degradation, only live wood remaining at ground root crown interface. Fungal presence within cavity.	Y	Y
Rooting area	Fair	Grass area, fence directly on root plate. Stem starting to cross property boundary.	N	N


T1


Bacterial weep from top of decay column


Occluded and outward cavity leading down to void in root-ball where there is no heartwood


Cavity at rootball


Site context against westerly Wind

APPENDIX B: RISK MANGEMENT STRATEGY

A Full condition survey has been applied to T1:

Visual Tree Assessment (VTA) Method:

All trees will be inspected using the VTA method expounded by Mattheck and Broeler (1994) and hazard assessment to Lonsdale D. (1999).

The analysis will be based upon on apparent vitality (leaf cover, extension growth), bud production, presence of deadwood and die back, fractured, and detached limbs, evidence of excessive basal movement, bacterial and/or fungal infection and external indications of stem and basal decay likely to affect the structural condition of the tree.

Full Condition Survey (FCS):

The objective of a FCS is to visually inspect every tree, which is within falling distance of potential targets including roads, car parks, paths, buildings, areas of congregation, deer fences and property boundaries located within the relevant sub-compartment or zone assessment, in accordance with accepted arboricultural practice. It will also include all individual tree dimensions and map locations accordingly referenced against a physical tag that has been applied to each tree within a report to the client.

Passive Condition Survey (PCS):

The objective of a PCS is to visually inspect every tree, which is within falling distance of potential targets including roads, car parks, paths, buildings, areas of congregation, deer fences and property boundaries located within the relevant sub-compartment or zone. Only trees that require risk mitigation will be referenced as an update within the appendices of the initial report to the client.

The date of inspection of each compartment is remarked upon within the report as evidence of survey completion.

Any perceived inaccuracies or changes of land use or targets, to the compartment observed by the surveyor, in comparison to how they are detailed on the maps, will be communicated to the client.

Risk Management Strategy:

Picking up on Obvious Tree Risk Features you can't help but notice:

When a tree has a risk that might not be acceptable or tolerable it'll usually have obvious risk features which we can't help but notice. Passive assessment is simply noticing these obvious features when we pass by trees.

Passive Assessment is an arborist most valuable risk management asset:

Passive Assessment is a multi-layered approach to managing the risk that gives us defence in depth. It is our most asset because:

- Trees with the highest risk are the easiest to find.

- It is happening in all zones of use, day in day out, at no additional cost.
- High-use zones are being assessed more frequently than lower use zones because they are visited more often.

Tree Work Recommendations and Priority Ratings:

Where works are recommended, they are allocated one of the 'Priority' criteria available as described below.

Priority 1: Urgent (note: the client will also be immediately face to face, notified by phone and email). This works should be undertaken as soon as reasonably practicable, and measures should be employed to limit access within the fall zone of this tree.

Priority 2: High (3 months)

Priority 3: Scheduled (12 months)

Next cycle – non-essential consideration for next recommended inspection cycle (three years unless otherwise stated).

Where the recommended works are not directly safety related, they are allocated the priority four rating below. For example, suggestions for initiative-taking maintenance may be recommended to improve the tree's condition and potentially mitigate future works.

Additional Information:

In addition, the Tree Inspector may on occasion add general information to a tree's record that is not causally related to any current risk, and which does not involve any recommendations for remedial works. In such cases, the information will be added and dated in the 'Comments' section of the tree record within this report.

Where such additional general information is suggested by the Tree Inspector that applies to several trees together throughout an area e.g., "consider ivy management at the southern end of zone A", then the details will be entered onto entered onto the survey schedule for the relevant zone.

Survey Validity Period and Limitations:

The FCS of each tree is valid for a maximum period of three years. If the recommended inspection frequency differs from this, it is to reflect any physiological or bio-mechanical concerns that require observation outside of the three-year FCS.

Inspections will become invalid after unforeseeable events; extreme weather, construction or development including tree works, or disturbance to the soil volume used by the tree. However, a walk-by survey undertaken after such an event can be arranged to validate the remaining period as advised within the recommended inspection frequency.

Inspections will become invalid if physical changes are made to the site post-survey which alter any potential target locations. This includes alterations in the location of paths and areas of congregation, and where vegetation management such as scrub, bramble, dead hedges, or

temporary fencing which were restricting access to the proximity of trees at the time of survey are no longer present.

Recommended Inspection Schedule:

Date	Form of inspection	Attended by
Spring 28/04/2024	FCS	Paul Zepler
Spring 2027	FCS	

Occupancy and Confluence definition

A typical zone of high consequence:

We are most likely to find any risks that are not acceptable or tolerable where we have a combination of high use, which is not affected by foul weather, and large trees. We call these 'Zones of High Confluence' because in tree risk benefit language they are where the highest categories of likelihood of occupancy and consequences merge; Likelihood of Failure being the third risk component. For risk management zoning, rather than assessment, the highest consequences are trees that have a diameter at breast height of about 500mm/20in or more. It is trees in zones of high confluence where we will conduct an initial FCS.

Zones of highest occupancy (high use):

This is how we are measuring the zones of highest occupancy The highest likelihood of occupancy zones for roads are where traffic is on average 1400 or more vehicles per day. They are roads you would think of as being busy. We zone train or tram lines as being the highest occupancy. For people, it is roughly someone passing about every minute or so between 7am – 7pm, Monday to Friday, which is around 1200 per day. Typical combinations of traffic and people which are zones of highest occupancy are urban areas that are rich with offices, shops,

bars, and restaurants. Shopping centres and markets make it into this category as well. In and immediately around schools, colleges, universities, hospitals, transport stations and stops, sports stadiums, and many pedestrian crossings, also qualify. Some footpaths through urban parks that are well-used to get to work or school are included. Last, locations where events are held, emergency routes, and campsites, are in the highest Likelihood of Occupancy categories.

Risk

Risk reduction work will be given the highest priority where it is an emergency. Outside of that, we will deal with the highest risks first and conduct the work in a sensible order.

Red: HIGH RISK - Not Acceptable risks will be reduced to an Acceptable level

Amber: MODERATE RISK - Not Tolerable risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks. Works needs to be applied to manage risk.

Amber: MODERATE RISK - Tolerable risks will not be reduced but may require an increased frequency of assessment than green Acceptable risks.

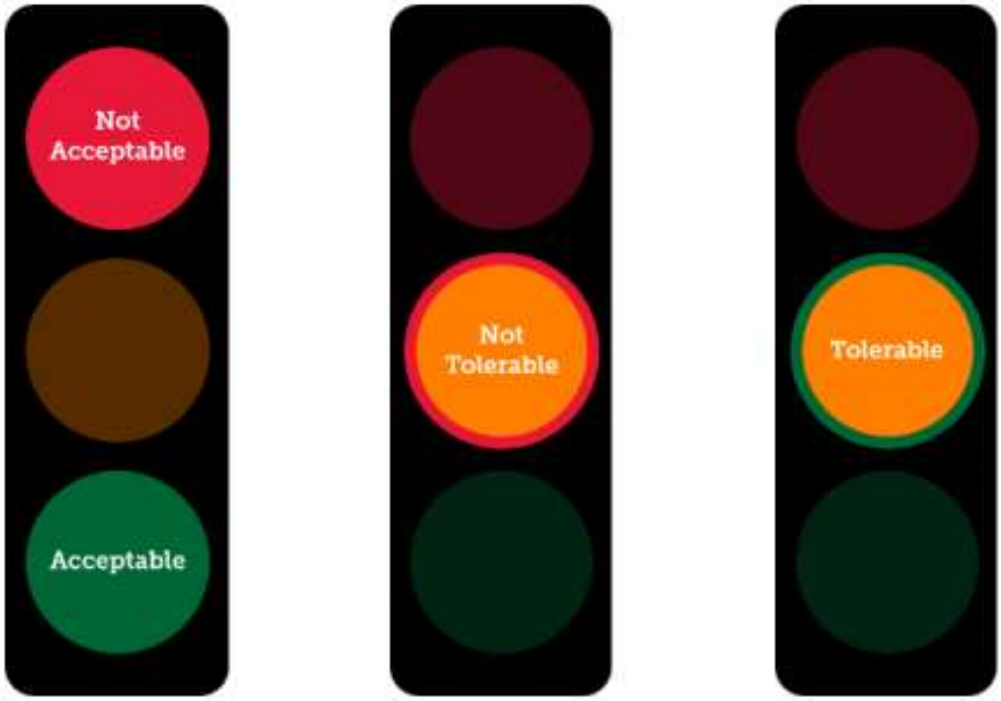
Green: LOW - Acceptable risks will not be reduced

Emergency Works:

If a tree has an extremely high likelihood of failure and it is in a high-use zone, then these Not Acceptable risks are 'emergency work'. This is when woks need to be conducted as soon as practicable and the area of potential hazard should completely limit access if possible.

Not Acceptable & Not Tolerable risks

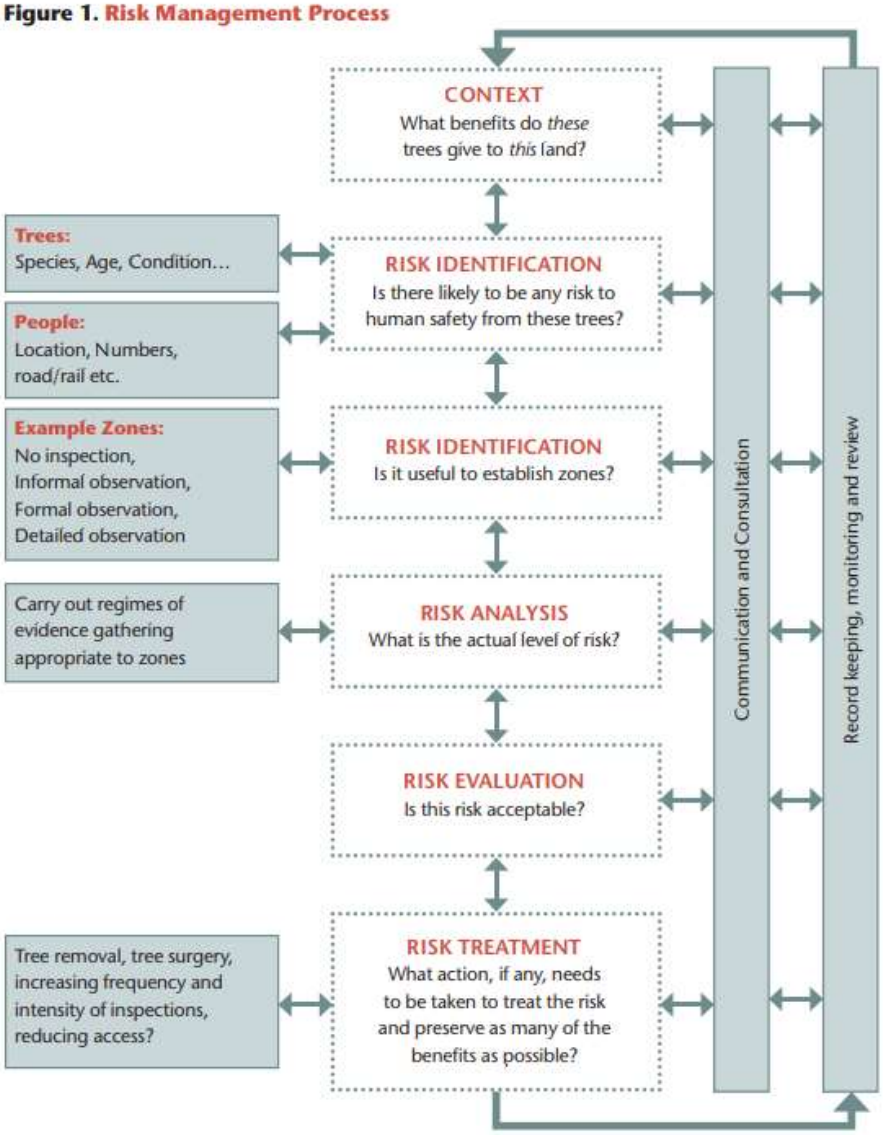
We will make ‘not acceptable risk’ reduction work the priority. Where possible, risk reduction work for risks that are not tolerable will be organised alongside other tree maintenance works. We also have to deal with other risks from trees, such as low branches, obscured road signs, and sightlines. If there's not enough budget to conduct both the risk reduction and other maintenance works, priority will be given to the risk reduction work.



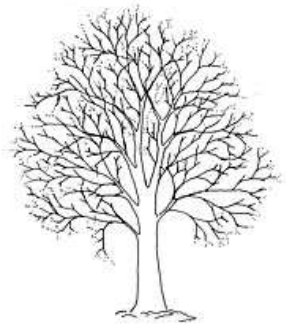
Acceptable and/or tolerable risk

An acceptable or tolerable risk is where the associated concern has either a low chance of impacting upon the site occupancy; meaning that any chance of branch or tree failure would likely have no consequence, or the site occupancy is low enough to minimalize the risk of incident to below: 1:1,000,000 chance during the occupancy period.

Figure 1. Risk Management Process



APPENDIX C: PRUNING SPECIFICATION AND DEFINITIONS



Crown Thin

Crown thinning is the removal of a portion of smaller/tertiary branches, usually at the outer crown, to produce a uniform density of foliage around an evenly spaced branch structure. It is usually confined to broad-leaved species. Crown thinning does not alter the overall size or shape of the tree. Material should be removed systematically throughout the tree, should not exceed the stated percentage and not more than 30% overall. Common reasons for crown thinning are to allow more sun-light to pass through the tree, reduce wind resistance, reduce weight (but this does not necessarily reduce leverage on the structure) and is rarely a once-only operation particularly on species that are known to produce substantial amounts of epicormic growth.

Crown Lift or Crown Raising

Crown lifting is the removal of the lowest branches and/or preparing of lower branches for future removal. Good practice dictates crown lifting should not normally include the removal of large branches growing directly from the trunk as this can cause large wounds which can become extensively decayed leading to further long-term problems or more short-term biomechanical instability. Crown lifting on older, mature trees should be avoided or restricted to secondary branches or shortening of primary branches rather than the whole removal wherever possible. Crown lifting is an effective method of increasing light transmission to areas closer to the tree or to enable access under the crown but should be restricted to less than 15% of the live crown height and leave the crown at least two thirds of the total height of the

tree. Crown lifting should be specified with reference to a fixed point, e.g. 'crown lift to give 5.5m clearance above ground level.'

Crown Reduction

The reduction in height and/or spread of the crown (the foliage bearing portions) of a tree. Crown reduction may be used to reduce mechanical stress on individual branches or the whole tree, make the tree more suited to its immediate environment or to reduce the effects of shading and light loss, etc. The result should retain the main framework of the crown, and so a considerable proportion of the leaf bearing structure, and leave a similar, although smaller outline, and not necessarily achieve symmetry for its own sake. Crown reduction cuts should be as small as possible and in general not exceed 100mm diameter unless there is an overriding need to do so. Reductions should be specified by actual measurements, where possible, and reflect the finished result, but may also refer to lengths of parts to be removed to aid clarity, e.g. 'crown reduce in height by 2.0m and lateral spread by 1.0m, all round, to finished crown dimensions of 18m in height by 11m in spread (all measurements approximate.)'. Not all species are suitable for this treatment and crown reduction should not be confused with 'topping,' an indiscriminate and harmful treatment.

Illustrations courtesy of European Arboricultural Council.

The importance of correct pruning cuts

Every pruning cut inflicts a wound on the tree. The ability of a tree to withstand a wound and maintain healthy growth is affected by the pruning cut – its size, angle, and position relative to the retained parts of the tree. As a rule, branches should be removed at their point of attachment or shortened to a lateral which is at least one-third of the diameter of the removed portion of the branch, and all cuts should be kept as small as possible. Examples of correct pruning cuts are shown as follows.

Showing sequence of removal to avoid damage to the retained parts.

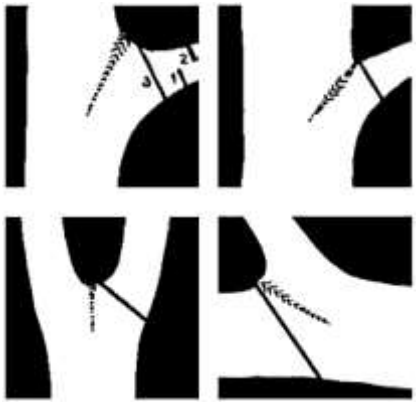


Diagram 2 – examples of correct pruning cuts. Drawings courtesy of European Arboricultural Council.

Other useful terms associated with tree work:

Adaptive growth

An increase in wood production in localised areas in response to a decrease in wood strength or external loading to maintain an even distribution of forces across the structure.

Adventitious/epicormic growth

New growth arising from dormant or new buds directly from main branches/stems or trunks.

Bracing

Bracing is a term used to describe the installation of cables, ropes and/or belts to reduce the probability of failure of one or more parts of the tree structure due to weakened elements under excessive movement.

Branch bark ridge and collar

See diagram three section 3. Natural features of a fork or union that may or may not be visually obvious. Neither the branch bark ridge nor collar should be cut.

Callus

Undifferentiated tissue initiated because of wounding, which become specialised tissues of the repair over time.

Cavity

A void within the solid structure of the tree, normally associated with decay or deterioration of the woody tissues. May be dry or hold water if the latter it should not be drained. Only soft decomposing tissue should be removed, if necessary, to assess the extent. No attempt should be made to cut or expose living tissue.

Co-dominant stems

Two or more, generally upright, stems of roughly equal size and vigour competing for dominance. Where these arise from a common union the structural integrity of that union should be assessed.

Coppicing

The cutting down of a tree within 300mm (12in) of the ground at regular intervals, traditionally applied to certain species such as Hazel and Sweet Chestnut to provide stakes etc.

Crown

The foliage bearing section of the tree formed by its branches and not including any clear stem/trunk.

Deadwood

Non-living branches or stems due to natural ageing or external influences. Deadwood provides essential habitats, and its management should aim to leave as much as possible, shortening or removing only those that pose a risk. Durability and retention of deadwood will vary by tree species.

Decline

When a tree exhibits signs of a lack of vitality such as reduced leaf size, colour, or density.

Dieback

Tips of branches exhibit no signs of life due to age or external influences. Decline may progress, stabilise, or reverse as the tree adapts to its new situation.

Dormant

The inactive condition of a tree, usually during the coldest months of the year when there is little, or no growth and leaves of deciduous trees have been shed.

Drop Crotching

Shortening branches by pruning off the end back to a lateral branch which is at least one-third of the diameter of the removed branch.

Fertilising

The application of a substance, usually to the tree's rooting area (and occasionally to the tree), to promote tree growth or reverse or reduce decline. This will only be effective if nutrient deficiency is confirmed. If decline is the result of other factors such as compaction, physical damage, toxins etc., the application of fertiliser will not make any difference.

Formative pruning

Minor pruning during the early years of a tree's growth to establish the desired form and/or to correct defects or weaknesses that may affect structure in later life.

Fungi/Fruiting bodies

A member of the plant kingdom that may colonise living or dead tissues of a tree or form beneficial relationships with the roots. The fruiting body is the spore bearing, reproductive structure of that fungus. Removal of the fruiting body will not prevent further colonisation and will make diagnosis and prognosis harder to determine. Each colonisation must be considered

in detail by a competent person to determine the long-term implications of tree health and structure when considered alongside the tree species, site usage etc.

Lopping and Topping

Generally regarded as outdated terminology but still included as part of Planning legislation. Lopping refers to the removal of large side branches (the making of vertical cuts) and topping refers to the removal of substantial portions of the crown of the tree (the making of horizontal cuts, generally through the main stems). Often used to describe crude, heavy-handed, or inappropriate pruning.

Painting or Sealing

Covering pruning cuts or other wounds with a paint, often bitumen based. Research has demonstrated that this is not beneficial and may in fact be harmful. On no account should timber treatments be used as these are harmful to living cells.

Pollard

The initial removal of the top of a young tree at a prescribed height to encourage multi-stem branching from that point, traditionally for fodder, firewood, or poles. Once started, it should be repeated on a cyclical basis always retaining the initial pollard point or boiling as it becomes known.

Retrenchment pruning

A form of reduction intended to encourage development of lower shoots and emulate the natural process of tree aging.

Root pruning

The pruning back of roots (like the pruning back of branches). This can affect tree stability, so it is advisable to seek professional advice prior to attempting root pruning.

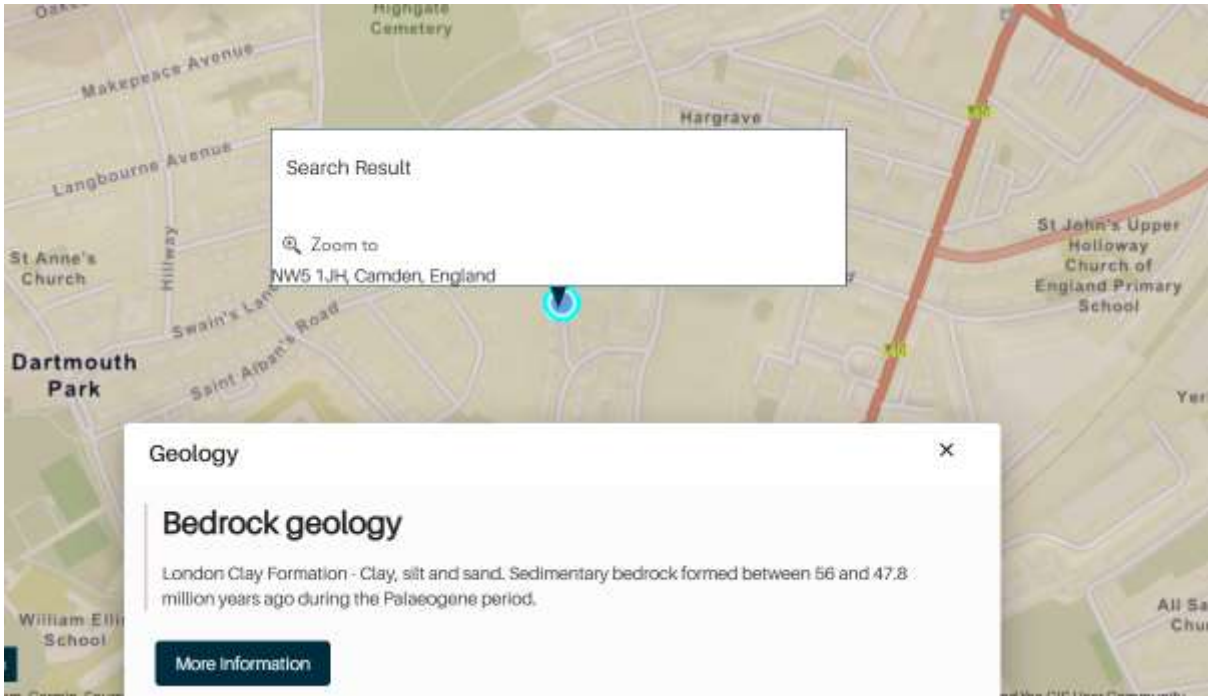
Topping

See Lopping and Topping.

Vitality

The degree of physiological and biochemical processes (life functions) within an individual, group, or population of trees.

APPENDIX D: GEOLOGY



London Clay Formation

Computer Code:	LC	Preferred Map Code:	LC
Status Code:	Full		
Age range:	Ypresian Age (GY) — Ypresian Age (GY)		
Lithological Description:	The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occurs in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels.		
Definition of Lower Boundary:	The base of the London Clay formation was redefined by Ellison et al. (1994) to correspond to the base of the Walton Member (Division A2) of King (1981). It is usually marked by a thin bed of well-rounded flint gravel or a glauconitic horizon, or both, typically resting on a sharply defined planar surface, although locally uneven. The London Clay Formation overlies the		

	Harwich Formation or, where the Harwich Formation is absent, the Lambeth Group.
Definition of Upper Boundary:	The top of the London Clay Formation is taken as the top of the Claygate Member, which is distinguished from the overlying Bagshot Formation by containing finer sand without crossbedding and in the relative abundance of clay and silt in the Claygate Member.
Thickness:	Up to 150 m in eastern part of the London Basin (Essex).
Geographical Limits:	The London Clay occurs in the London Basin, East Anglia, and the Hampshire Basin.
Parent Unit:	Thames Group (THAM)
Previous Name(s):	*none recorded or not applicable*
Alternative Name(s):	*none recorded or not applicable*

APPENDIX E: REFERENCES AND USEFUL LINKS

- British Standards Institute (BSI). London. (2010). BS 3998:2010 Recommendations for Tree Work.
- Lonsdale D. (1999). Research for amenity Trees No.7: Principles of Tree Hazard Assessment and Management. HMSO, London.
- Mattheck and Breloer H. (1994). Research for Amenity Trees No.4: The Body Language of Trees. HMSO, London.
- National Tree Safety Group (NTSG). (2011). Common Sense Risk Management of Trees: http://ntsgroup.org.uk/wp-content/uploads/2016/06/FCMS024.pdf
- Read, H. (2000). Veteran Trees: A Guide to Good Management. Ancient Tree Forum
- VALID: Tree inspections and Risk tolerance

NVC | JNCC - Adviser to Government on Nature Conservation

https://www.conservationhandbooks.com/why-fell-trees/?gclid=CjwKCAiAr6-ABhAfEiwADO4sfeusIHpJzoWxalhqjE_TFQF_lISaIzwmX6YD39A9gZ7ZVnunzhznpBoCyX0QAvD_BwE

https://www.trees.org.uk/Trees.org.uk/files/f0/f0e3a76b-926f-4cde-b703-417563ae93df.pdf

https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/dead-wood-for-wildlife/