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SURVEY MANAGE IMPROVE

Unit 1 Foundry Yard, New Row
Boroughbridge YO51 9AX
[redacted]
Company Number 10438116
Registered in England and Wales

Project: Risk Assessment of Trees

Site: The Old Stables, 6 Newell Hall Mews, Otley, LS21 2SF

On Behalf of: Mr N Davy

Date: 31/03/2022

Reference: BA11344

DOCUMENT CONTROL

Surveyed by*	Matt Metcalfe			Report date	28/02/2022
Prepared by*	Matt Metcalfe				
Reviewed by*	Sue Barnes				
Revision	A	Date	31/03/2022	Notes:	
	* Refer to qualifications and experience appendix				

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SUMMARY OF TREE INFORMATION

I have undertaken a ground-based walkthrough risk assessment of the trees onsite to assess their general condition and their relationship with significant targets.

Most trees offer a Broadly Acceptable Risk and are assumed to be at a point where the risk is already 'As Low as Reasonably Practicable' (ALARP) when considered over the coming year. Overall, the risk offered by most of the trees are low and within the boundaries of tolerability that might ordinarily be applied by a reasonable and informed landowner and so were not recorded.

Of the trees assessed 2 trees were classed as offering a Moderate Risk.

I also noted that Ivy has present on many of the trees stems and canopy which restricts inspection levels. Also due to the time of the year and the recent rainfall some areas of the site were inaccessible due to the embankments being slippery. In the appendix tree schedule and explanatory notes I have outlined which trees were inaccessible.

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This ground-based visual assessment was carried out to assess the current risk they offer to site users. The report also includes recommendations both for current and future works required to maintain or improve the condition of trees, simplify management or to improve safety.

Its purpose is to provide initial information on the condition of trees and the risk offered by trees, based upon their condition, location, likelihood of failure and potential to impact property and people.

This assessment has been undertaken by a qualified arboriculturalist.

This arboricultural assessment includes general information on tree condition and management. The report includes:

a visual tree assessment, which is prepared in line with best practice.

a tree assessment of risk trees, detailing significant issues with suggested works.

a tree schedule & survey plan within the appendices, which details the principal management issues and trees that pose an elevated risk to the site users and neighbours.

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INTRODUCTION

1.1 The Terms of Reference. This report is based upon a ground-based assessment and is based upon the Visual Tree Assessment (VTA) methodology, as devised by Mattheck (1993) in addition to Hazard Evaluation devised by Matheny & Clark (1993). Guidance is also taken from Lonsdale (1999) Principles of Tree Hazard Assessment and Management. The format of the survey follows the guidelines of British Standard 5837:2012 'Trees in relation to design, demolition & construction - Recommendations' & The ISA Tree Risk Assessment Manual (2017).

1.2 Objective. To carry out an assessment on the condition of trees and to identify the trees which pose a threat to site users and neighbours, and where such trees are located propose management to enable reasonable risk levels to be achieved. Some areas of this report have taken the individual assessment stance where areas of tree population have been assessed and included within the report, this was completed at the request of the client. The assessment and report are primarily aimed at reviewing the risks from the structural failure of the trees.

1.3 Surveyors: The assessment was undertaken by Matt Metcalfe. Brief details on qualifications and experience are included in APPENDIX – CONSULTANT BRIEF QUALIFICATIONS AND EXPERIENCE. This report is based on onsite observations and the provided information.

1.4 The scope of this report: This preliminary assessment is concerned with the health and risk offered by the trees, in addition, comments relating to general management requirements are included; remedial recommendations are included in the tree schedule in APPENDIX – TREE SCHEDULE & EXPLANATORY NOTES.

1.4.1 The statements made in this report do not take account of the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. Barnes & Associates cannot, therefore, accept any liability about these factors, nor where prescribed work is not carried out correctly and professionally in accordance with current good practice. The authority of this report ceases at any stated time limit within it, or if none stated after two years from the date of the survey, or when any site conditions change, or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s), whichever is the sooner.

1.4.2 Assessment of the potential influence of trees upon buildings or other structures resulting from the effects of trees abstracting water from shrinkable load-bearing soils was not included in my instruction and is not considered here. Though issues relating to current or foreseeable direct damage related to tree growth is included as appropriate.

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METHODOLOGY.

2.0 Visual Tree Assessment (VTA), relies upon a tree's response to loading and adaptation to weakness to help provide details of the tree's internal condition and stability. As the stress distribution in a tree is changed in response to the presence of a defect or loading the tree attaches or lays down more wood in overloaded locations to strengthen that area. As a result, bulges or dents are formed near hollows, ribs, near cracks or in areas of increased loading. These changes in the tree's appearance or its body language can be interpreted.

2.0.1 Visually examining a tree and a tree response to its environment, an arboriculturalist can gather information on the condition of its roots, trunk, main branch structure, crown, buds, and leaves to make an assessment and draw conclusions about the general condition, health, and vitality.

2.0.2 Additional, biological signs, such as undersized leaves, discoloured foliage, dead branches, large or numerous cankers, and fungal fruiting bodies, help inform the assessment which can be compared to typical growth patterns and appearance of the tree involved. If mechanical weakness is suspected, there may be a need for more detailed investigation using specialist decay detection and measuring equipment.

2.1 Potential Risk from Trees. Trees, unlike built structures, are a dynamic structure and offer several specific management issues that need to be considered. Reasonable risk management generally aims to provide trees that can be regarded as stable in a normal/foreseeable, storm event.

2.2 Wind Speed. In the UK wind speed typically expected winds range between 21.5m/s and 31m/s. General, the windiest parts of the UK are the north and west. This is because the prevailing west to south-westerly winds across the UK lead to northern and western areas being typically more exposed than the south and east.

2.2.1 There are also a lot of localised effects with most hills, mountains and coasts being windier than low-lying inland areas, with coastal areas having typically higher winds as the sea surface produces less friction than the land.

2.2.2 Based upon information published in the UK National Annex to Eurocode 1 - Actions on structures Part 1-4: General actions - Wind actions In this region, we expect to receive peak wind speeds around of 23m/s (meters per second) which when adjusted for altitude would suggest that this site would typically expect to receive winds speeds of 24.5m/s. I have included further general information in APPENDIX – TREES AND RISK.

2.3 Target evaluation. To enable a balanced approach to the site assessment, I undertook an initial review of the associated risks onsite to identify likely levels of occupation, areas where trees are within striking range of valuable or fragile structures or higher human occupancy locations. Targets are broadly zoned in relation to occupancy rates, population, and value. These are included in the Occupancy Rates Plan, BA111344/OP in APPENDIX – SITE PLANS.

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2.4 Risk Assessment. The risk assessment centres on the area likely to be affected by trees; this is typically considered to be the area within 0.5 times the trees height when falling branches/deadwood etc are concerned and 1.5 times the trees height when total tree failure is predicted. I have included information on this by plotting a yellow circle around the recorded trees which equates to 1.5 times the estimated/recorded tree height on the Tree Location Plan BA10331/TP in APPENDIX -SITE PLANS

2.5 The assessment follows the general principles of Risk Assessment; to reduce the risk of injury to people, property damage or disruption of services. The International Society of Arboriculture (ISA) Tree Risk Assessment Methodology takes a qualitative rather than a quantitative approach to risk assessment. The system uses the output of matrix 1 (below) to compare the likelihood of failure of a tree or tree part, the likelihood of impacting the target with the potential consequences of failure, which is output in matrix 2 (below),

Matrix 1. Likelihood of failure

Likelihood of failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk Rating matrix

Likelihood of failure & impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate.	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

2.6 The Risk Rating helps inform priority for action with the highest risk rating with the greatest target values requiring work urgently. Where the priority of trees is recorded as being low and a low target value, works required to improve the tree's risk of harm, are expected to be undertaken as part of the normal estate management.

2.7 Tree Management. We take a balanced approach to managing trees taking account of their contribution to biodiversity, the environment, human health, safety and quality of life. An appropriate response to tree risk takes account of the human and financial costs involved in controlling risks. It also gives due regard to the value of trees in the widest sense, and how wholesale tree removal impoverishes our environment.

2.8 At the same time, we aim to provide holistic management guidelines to help both maintain and improve the condition of a tree, whilst attempting to predict management or structural problems or where trees are inappropriately located and offer a foreseeable nuisance. In doing so we hope to strike a balance between cost-effective management, timely intervention and the guidelines of current best practice.

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SITE ASSESSMENT

3.1 The purpose of this report. This is an arboricultural assessment outlining the current condition and safety of the trees on site and aims to recommend works to improve the tree's condition, pre-emptive works to simplify tree management and identify the trees offering an elevated risk of harm. Its purpose is to provide initial information on the potential risks offered by trees their condition and to suggest either further assessment or works to improve safety and extend their safe life.

3.2 Background Information. Subject to physical access is available, to assess all the significant trees on site from ground level.

3.2.1 The trees were tagged at above head height using a single nail and a white identification tag, and the locations recorded on the aerial image.

3.2.2 Information on the trees is recorded and their details are discussed in the tree schedule, which is included in APPENDIX – TREE SCHEDULE & EXPLANATORY NOTES.

3.3 Date of Assessment. Our tree survey was undertaken on 15/02/2022

3.4 Weather conditions. The weather was overcast then brighter with fair to good visibility.

3.5 Boundaries: The outer site boundaries are well defined by hedging, walls and fencing, this helped inform my assessment of the occupancy rates, recorded on the plan, BA11344/OP in APPENDIX – SITE PLANS.

3.6 Brief site description. The site is a tree group garden area with a stream running north to south through the site.

3.6.1 I have highlighted the approximate location of the site boundaries in red on the aerial photograph below, image courtesy of ©Google and third-party suppliers noted on the plan.

3.7 Tree Population. The trees compose of a reasonably diverse mix of large, moderate growing native and near-native trees. No rare species were observed.

3.8 Amenity Value. The trees filter views between the public domain and the site in addition to defining the site and land use, based on the level of visibility the trees are assumed to have a high visual amenity value.

3.9 Legislative Protection: Information on Leeds City Councils online resources suggest that the site is covered within an Area Tree Preservation order TPO1971_001OTL

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3.10 Principal Targets. The trees are located within the grounds and close to the boundaries of neighbouring buildings, highway and a school playing field. These are deemed the principal targets.

3.11 Pedestrian Access. Pedestrian access is possible around the entire site, and in most of the neighbouring gardens. However, this appears to be typically restricted to the formal footpaths, road and hard surfacing on site.

3.12 Vehicle Access. Vehicle access is restricted to maintenance vehicles only.

3.13 Condition of Trees. This inspection provides an assessment of the condition of the principal trees, within the existing site along with landscape and environmental constraints. The trees have been assessed from ground level only. Information upon the trees is in the Tree Schedule in APPENDIX – TREE SCHEDULE & EXPLANATORY NOTES.

3.14 Identification and location of the trees. I have illustrated the location of the recorded trees on Tree Location Plan BA11344/TP in APPENDIX – SITE PLANS. Trees are shown on the plan, which is for illustrative purposes only and should not be used for directly scaling measurements.

3.15 Visual assessment of trees. The assessment of the trees was undertaken from ground level using Visual Tree Assessment (VTA), this is a non-invasive method of examining the health and structural condition of individual trees. The assessment provides information on the condition of the roots, trunk, main branch structure, crown, buds and leaves together providing an assessment of general tree health and vitality.

3.15.1 Basic decay detection tools such as mallets and probes were utilised to determine whether further investigation is required.

3.15.2 Other than where the height of a tree is critical to the outcome of the assessment, approximately 1 in 10 trees are measured using a clinometer and the remainder estimated against the measured trees. Where possible canopies are measured using either tape or measuring wheel, where access is restricted, they are estimated. Stem diameters are measured using a rounded-down diameter tape to avoid variations due to stem shape, otherwise where trees are in a group and/ or not accessible the stem's mean stem diameters are estimated to provide a reasonable basis for ageing.

3.16 Risk Assessment. I have undertaken a tree survey to identify the general nature of the trees and their relationship with significant targets. The level of detail with which the trees have been assessed is informed by their relationship with targets. Based on these larger trees adjacent to higher-value targets were more closely assessed than smaller trees adjacent to a lower value target when viewed over the next year.

3.16.1 The majority of trees offer a Broadly Acceptable Risk and are assumed to be at a point where the risk is already 'As Low as Reasonably Practicable' (ALARP) when considered over the coming year. Overall, the risk offered is low and within the boundaries of tolerability that might ordinarily be applied by a reasonable and informed landowner.

3.17 Moderate Risk Trees. On-site 2 trees are assessed as offering a Moderate Risk and pose an elevated risk of harm to site users and or neighbours, as detailed in Table 1 below. These trees are highlighted Yellow within my Tree Schedule in APPENDIX – TREE SCHEDULE & EXPLANATORY NOTES, and on the site, plan located in APPENDIX – SITE PLANS.

Table 1 – Trees offering a Moderate Risk of Harm	
Tree No.	Tree Name
T1675	Sycamore
T1677	Sycamore

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Moderate Risk Tree				
T1675 Sycamore				
TRAQ Risk Assessment				
Direct Damage	Root Plate Failure	Main Stem failure	Main Leader failure	Branch Failure
Low	Moderate	Low	Low	Low

Growing at a higher level. Buttress obscured by shooting. A hole in the buttress leads to decayed volume. Single stem with a moderate lean. Unable to access without fall arrest system. Hollow in the stem appears to extend through the tree in its entirety. The tree was inspected from as close as possible without compromising safety.	Clear area around the stem. Once the epicormic growth is removed a visual inspection may conclude no futher action required or may require to assess the buttress using a Sonic Tomography. Fall arrest systems needed to fully inspect.

Priority	6 months	Next inspection	Pending investigation

Moderate Risk Tree				
T1677 Sycamore				
TRAQ Risk Assessment				
Direct Damage	Root Plate Failure	Main Stem failure	Main Leader failure	Branch Failure
Low	Moderate	Low	Low	Low

Located on boundary. Single stem growing close neighbouring properties. Unbalanced crown shape. Significant asymmetry to the canopy. Crown distorted due to group pressure. Fire damage to surface roots and lower stem. Extensive damage to the root system.	Remove the tree.

Priority	6 months	Next inspection	None if removed

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Low Risk Tree				
T1674 Sycamore				
TRAQ Risk Assessment				
Direct Damage	Root Plate Failure	Main Stem failure	Main Leader failure	Branch Failure
Low	Moderate	Moderate	Low	Low
Growing as part of a group on a bank. Decay within the buttress can be seen. Single stem. Ivy has developed and prevented inspection. Unable to fully access without fall arrest systems. It appears that the tree historically was biforked at ground level with the eastern codominant stem now gone/decay present. The tree is sheltered by neighbouring trees. Overall risk is low as if failure was to occur at the base then the tree is likely to hang up in neighbouring trees but is within striking distance of nearby property.		Remove the tree. Or Investigate further with the use of rope access, probes, sonic tomography or Microsecond Timer.		
				
Priority	3 months	Next Inspection	In line with academy programme	

CONCLUSION

4.1 Tree Management. Unfortunately, many of the trees appear to be at much the same point in their life cycle and this should ideally be amended through a tree management program centred around improving immediate safety in addition to the phased establishment of replacement trees and removal of problem trees which would be beneficial to maintain tree cover. Also, improving the appearance of some areas and the broad range of benefits offered by the trees.

4.1.1 Ideally, a management plan should be prepared to help provide a more detailed insight into the population of the trees. To provide appropriate forthcoming works, planting opportunities and to help identify both immediate and ongoing management to help stabilise the tree population.

4.2.1 Trees potentially live for many generations, their environment and people's attitudes can change significantly over their life spans, and management practices can change. Plans and procedures should be reviewed regularly to ensure they remain effective and current, particularly in relation to climate change issues and current best practices.

4.3 Remedial Tree Works. Several trees contain defects and require works to improve their current condition or require further investigation. These works are detailed within the schedule of the tree listed in APPENDIX – TREE SCHEDULE & EXPLANATORY NOTES.

4.4 Additional and ongoing requirements. The site will require an ongoing assessment to maintain a reasonable level of safety.

4.5 Limiting Site Access. It is reasonable to assume a 'Storm' of force 10 using the Beaufort Scale (winds of 87.9kph-102.2kph (54.8-63.6 mph) on land) will

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occur annually and such a risk should be built into the site risk management. Recent work has shown even sound trees that would typically be regarded as safe can fail during high winds through several factors relating to wood physiology, dynamics and the relationship between the root system and the supporting soils.

4.5.1 Typically, trees have evolved to fail in part, i.e., twigs and branches are sacrificed/fail from a parent tree rather than the tree being lost entirely. Observations at various sites have found that twigs and branches, can break from trees at wind speeds of as little as 50kph (31mph), the upper limit of a 'strong breeze' as detailed in Beaufort Scale 6 (38.6 kph- 49.7 kph (24.1mph - 31.0mph)). Such branch failures are difficult to predict with any great level of detail and as such, I would recommend a defensive position is best adopted.

4.5.2 Considering this, I would suggest that changes to the opening/access arrangements or warning signage is considered. Ideally, access to the site is restricted when the wind speeds approach 'Near Gale' or 'Moderate Gale' - Beaufort Force 7, (49.8kph - 61.5kph (31.1mph -38.3mph)) or 30mph based upon normal broadcast weather forecasts. Where this is not possible owners are likely to be required to maintain an elevated level of management to help ensure safety.

4.6 Trees subject to statutory controls. If the trees are covered by a tree preservation order, located in a Conservation Area, other legal planning constraints or on neighbouring land works may be restricted. The works specified are necessary for reasonable management and should be acceptable to the local authority.

4.7 Implementation of works. I would always suggest that you get at least three fixed priced quotations before deciding upon a contractor to undertake the works on your behalf.

4.7.1 You should ensure that any contractor employed for the above works is suitably qualified and experienced, familiar with current best practice and covered by current, public, products, and employee liability insurance, to an adequate level. I would advise that any Arboricultural work is carried out by a reputable contractor or one approved by the Arboricultural Association. (www.trees.org.uk) is advisable if you require us to suggest a contractor for your works please feel free to get in touch.

4.7.2 The contractor should carry out all tree works to BS3998 (2010) Tree Work – Recommendations and/or the European Tree Pruning Guide - European Arboricultural Council (English Version) and the Industry Code of Practice for Arboriculture: Tree Work at Height (Edition 1, February 2015). Works should be undertaken in strict accordance with current arboricultural best practice ensuring that any pruning works accord with current target pruning methodology. They should be fully conversant with current Arboricultural best practice and adhere to all relevant legislation including the New Road & Street Works Act 1991 for works in proximity of highways, and The Working at Heights Regulation 2005. In addition to the dangers & legislation associated with working close to Electrical Supplies.

4.7.3 Additionally, they should be aware of the Wildlife and Countryside Act 1981. In addition, the amendments of 1985 and its implications to tree works. Works should be planned to avoid times when birds are nesting and be aware that a bat survey may be needed on significant tree hollows. If bats are discovered during inspection or subsequent work, Natural England must be informed immediately.

4.8 Legal Duty. Tree owners have a statutory duty of care under the Health and Safety at Work Act 1974 and the Occupiers Liability Acts of 1957 & 1984 in addition to the Management of Health and Safety Regulations 1999, to ensure that members of the public and staff are not to be put at risk because

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of any failure by the owner and to take all reasonable precautions to ensure their safety.

4.9 Future considerations. Trees are living organisms whose health and condition can change rapidly. The health, condition and safety of trees should be checked on a regular basis. In addition to professional inspection, a tree owner should inspect their trees personally on a regular basis, particularly after stormy weather or high winds.

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APPENDICES

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APPENDIX – CONSULTANT BRIEF QUALIFICATIONS AND EXPERIENCE

Mr Ian Barnes - Director
RCArbor.A, F.Arbor.A, C.Hort, CEnv,
Arboricultural Association Registered Consultant, Fellow Arboricultural Association, Chartered Horticulturalist, Chartered Environmentalist.
Professional member Consulting Arborist Society.
BSc (Hons), Arboriculture and Urban Forestry, HND Arboriculture. NDHt/Arb, Cert Arb L4 (ABC), ISA TRAQ Qualified, QTRA Licensed

Ian has been in the Horticulture and Arboricultural industry since 1985. He has experience in commercial horticulture, Local Authority, and Highway Authority tree surveying. He has been a commercial Arboricultural climber for 15 years. He ran in partnership a tree and landscape contracting business for over 15 years. He has been a full time Arboricultural consultant since 2007. His main area of works are trees and development (BS5837) and advanced tree assessments using various advanced techniques. He is a qualified tree risk assessor and experienced in trees and subsidence claims. He is a trainer in the UK for Fakopp equipment, Sonic and Electronic tomography, and Dynaroot and Static Tree pulls. He is also director of a hi-tech arborist/ landscape equipment and training company Tree Diagnostics Ltd providing training to arborists in advanced assessments. He undertakes ground-penetrating radar (Tree Radar) scans.

Mrs Sue Barnes- Director
CMLI, F.Arbor.A, C.Hort, CEnv, MBALI
Chartered Landscape Architect, Fellow Arboricultural Association, Chartered Horticulturalist, Chartered Environmentalist, Registered Designer BALI.
FdSc Arboriculture, NDHt/Arb
Professional Member Consulting Arborist Society, Affiliate member RIBA,

Sue has been in the Horticulture / Arboricultural industry since 1986. She has experience in amenity parks and gardens and has been a head gardener for Local Health Authority. In partnership she ran a tree contracting and landscape design and build company for 15 years and also has been a tree and landscape consultant full time since 2007. Her main area of works is detailed commercial planting design, specifications (NBS), tree planting specifications and Arboricultural management, Trees on development sites BS5837 reports and plans. Experienced in trees and subsidence and also legal and planning conditions in regard to trees and landscapes. Sue undertakes ground-penetrating radar (Tree Radar) scans along with assisting with other further investigation works on trees such as tomography scans and assists in dynamic and static tree tests.

Mr Matt Metcalfe - Consulting Arborist/Team Leader
M.Arbor.A
Professional member of the Arboricultural Association, City and Guilds NPTC assessor/ Instructor, Lantra Apprenticeship End Point Assessor
FdSc Arboriculture, National Diploma in Arboriculture, Level 5 Certificate in Education.
VALID tree risk validator
IOSH Managing Health and Safety in the Workplace

Matt has worked in the Arboricultural Industry since 2000. Firstly, as a climbing arborist in both the public and private sector. He became a lecturer at a land-based college in York in 2009 where he taught practical and theoretical Arboriculture at level 2/3 and then became the course manager in Arborist apprenticeships and an internal verifier. He became a City and Guilds NPTC Assessor in 2012, in ground-based and aerial Arboriculture and NPTC City and Guilds Instructor/Assessor in land-based industries.. In 2018 he became a fulltime consulting arborist and provides advanced tree assessment training, undertakes BS5837 tree surveys, Arboricultural safety audits and is a trained tree risk assessor/validator. He undertakes ground-penetrating radar (Tree Radar) scans along with other further assessments on trees such as tomography, and dynamic tree testing and static tree pulls.

Mr Trevor Grigg – Consulting Arborist
Technical member of the Arboricultural Association,
Cert Arb L4 (ABC)
NC Horticulture (Arboriculture)
Lantra Professional Tree Inspector
QTRA Licensed

Since 2004, Trevor has been involved in arboriculture firstly as a climbing arborist, then as an Arboricultural Officer for a local authority. He has gained experience of working with a wide range of clients, from residential tree owners to schools, Parish Councils and Highways departments providing a variety of tasks and requests such as risk assessments, management plans and replanting schemes. Trevor joined Barnes Associates in 2021 with a view to widening his experience of trees in relation to developments and further investigations of trees using the specialist equipment available.

Mr John Evans – Consulting Arborist
Technical member of the Arboricultural Association,
Forestry and Arboriculture Level 3

For the past six years, John has been a climbing arborist, firstly working freelance for utility and domestic clients, then joining Darlington Borough Council. Whilst working for the council, he continued his professional development and working below and observing Darlingtons Tree Officer. John was very excited to move into a role with Barnes Associates to continue his development, learning how to use the advanced tree surveying equipment and developing into BS5837 report writing.

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APPENDIX – TREE SCHEDULE & EXPLANATORY NOTES

The following survey has been prepared from a visual assessment taken from ground level without any detailed investigation. Observations are based upon the body language of the trees and any visual indicators present at the time of inspection. This survey should be regarded as a preliminary overview; ongoing inspections will be required as specified individually. In most situations the health, condition and safety of trees should be checked on a cyclic basis, alternating between early and late seasons to ensure a full picture of tree health is established. Inspections should only be carried out by a suitably qualified arborist.

Similarly, numerous potential defects may not be detectable dependent upon timing of inspection; in particular, wood decay fungi may only produce external fructifications annually (rather than perennially), or may not provide external symptoms until an advanced state is achieved.

Reasonable risk management generally aims to provide a tree that can be regarded stable in normal / foreseeable, regularly experienced storm events i.e. force 10 storms. The level of risk offered by the tree will be significantly greater as the wind speed that the tree is exposed to increases beyond this level. Additionally, the threat from aerial parts i.e., included unions may remain even following works, although failures of such parts are likely to be limited to small diameter branches and to periods of extreme weather.

As an arborist, I am a tree specialist and use my knowledge, education, training and experience to examine trees, recommend measures to enhance their beauty and health, and attempt to reduce the risk of living near trees. As a client, you may choose to accept or disregard these recommendations, or seek additional advice.

As an arborist I cannot detect every condition that could possibly lead to a tree or limb failure. Trees are living organisms that may fail in many ways, some of which we do not fully understand.

Conditions are often hidden within the tree and below the ground. As arborists, we cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Sometimes trees may appear "healthy," but may be structurally unsound. Likewise, remedial treatment, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the Arboricultural perspective, such as property boundaries and ownership, disputes between neighbours, planning issues, sight lines, landlord-tenant matters etc. Arborists cannot take such issues into account unless complete and accurate information is given to them. Likewise, as an arborist I cannot accept any responsibility for the authorisation or non-authorisation of any recommended treatment or remedial measure.

Furthermore, certain trees are borderline cases as to whether they should remain or be removed. If conditions change a tree may need further monitoring in the future to determine its health and structure. Trees can be managed, but they cannot be controlled, and to live near a tree is to accept some degree of risk.

Mathematical abbreviations: > Greater than, < Less than.

Est: This includes any attributes that have been estimated.

Measurements / estimates: Measurements are taken with a tape, clinometer or laser. If dimensions are estimated, this will be indicated within the Est column.

Tree number: Numbered Tag attached to each stem usually on the inside face of the stem at roughly 2.5 metres. Where the number is prefixed by a T, G, H, A, ST, S or W this denotes that the tag refers to a Tree, Group, Hedge, Area, Stump, Shrub or Woodland.

Name: Tree species are detailed by their common name- Latin can be provided upon request.

Age: I record the age as an estimate of the tree likely span for guidance only i.e.:

Y	Young	Recently established/planted tree.	M	Mature	The middle one third of its likely expected life span
SM	Semi Mature	Fully established and growing with high vigour	OM	Over Mature	The later one third of its likely expected life span with sign of canopy retrenchment.
EM	Early Mature	The first third of its likely expected life span	V	Veteran	An aged example of the species, typically with defects & conservation value
			A	Ancient	Beyond its expected Life span possible of historical interest or in a state of decline

Height: I estimate height to the nearest metre to the mean height.

Height to underside: I estimate height to the nearest half metre to the mean underside of the canopy.

Diameter: These figures relate to a measurement of the stem at 1.5m above ground level recorded in millimetres, measured with a rounded down diameter tape.

Canopy (N S E W): I estimate the distance of the canopy radius to the nearest metre to provide a mean distance of separation between the stem and the outer canopy.

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Vitality: Is a personal assessment of the tree's growth rate in the current season, in comparison to other trees within the locality, region and an indicator of the tree likely response to site change.

Good	A tree of normal vitality	Poor	A tree of low vitality
Fair	A tree of lower vitality	Dead	A dead or very low vitality tree

Safe Life: Is a personal assessment of the trees likely expected remaining safe life span in years, assuming the current site management continues, or the tree is protected from significant environmental change. Trees can enter into serious decline with site changes and likewise, the expected safe life can be significantly improved following changes / improvements to site management and following remedial works.

Category: I included a method adopted from BS5837 to enable rapid assessment of a tree's quality, detailed below.

Category and definition		Colour Code
Category A - High Quality Trees Trees with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups. Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features and/or significant conservation, historical, commemorative or other value (e.g. Locally notable trees, Veteran, Ancient trees or wood-pasture).	Green on Plan
Category B - Moderate Quality Trees Trees with an estimated remaining life expectancy of at least 20 years.	Trees downgraded because of impaired condition, or having remediable defects, such as unsympathetic past management or damage, such that they attract a higher collective rating than they might as individuals or trees with material conservation or other cultural value.	Blue on Plan
Category C - Low Quality Trees Trees with an estimated remaining life expectancy of at least 10 years, or young trees stem<150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. Trees with no material conservation or other cultural value	Grey on Plan
Category U – Unsuitable for retention Trees that cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	Tree which are poorly located close to existing built structures and offer a foreseeable risk of damage or nuisance. Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse and are not expected to respond to pruning. Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline or infected with pathogens of significance to the health Please Note Category U trees can have existing or potential conservation value, which it might be desirable to preserve though canopy reduction or removal.	Red on Plan

Comments / Observations: General comments referring to tree health, structure and condition.

Management Options: Comments detailing remedial works required improving immediate safety or improve the management of the tree.

Priority: Guidance for the time scale in which works should be completed, from the date of the report.

Tree Risk Assessment: The International Society of Arboriculture (ISA) Tree Risk Assessment Qualification (TRAQ) takes a qualitative rather than quantitative approach to risk assessment. It uses matrices to compare the likelihood of failure of a tree or tree part, the likelihood that it will impact the target and the potential consequences of failure. Unless stated otherwise the risk assessment assumes the risk is offered over the next year.

Matrix 1. Likelihood of failure

Likelihood of failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk Rating matrix

Likelihood of failure & impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate.	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Preliminary Arboricultural Assessment - This should not be referred to as a specification of Arboricultural Work

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Est	Tag No.	Species	Age	Height	Height to canopy	North	South	East	West	Vitality	Safe Life	Category	Stem Dia (mm)	No. Stems	Observations	Management Options	Risk	Risk offered to	Priority
Est Position Est Dimensions	T1674	Sycamore	M	18	10	5	5	5	5	Fair	<10	U	450	1	Growing as part of a group. Growing on a bank. Decay within the buttress can be seen. Single stem. Ivy has developed and prevented inspection. Unable to fully access without fall arrest systems. It appears that the tree historically was biforked at ground level with the eastern codominant stem now gone/decay present. The tree is sheltered by neighbouring trees.	Remove the tree. Or Investigate further with the use of rope access, probes, sonic tomography or Microsecond Timer.	Low	Buildings	6 months If retained
Est Position Est Dimensions	T1675	Sycamore	M	20	8	9	9	9	9	Fair	10+	C	800	1	Growing at a higher level. Buttress obscured by shooting. A hole in the buttress leads to decayed volume. Single stem. with a moderate lean. Unable to access without fall arrest system. Hollow in the stem appears to extend through the tree in its entirety.	Clear area around the stem. Assess the buttress using a Sonic Tomography. Fall arrest systems needed to fully inspect.	Moderate	Buildings	6 months
Est Position Est Dimensions	T1676	Ash	M	18	2	8	8	8	8	Fair	<10	C	750	1	Located next to the boundary. Buttress obscured by Ivy. Single stem. Ivy has developed and prevented inspection. Ash Dieback suspected.	Assess the vitality of the tree when in leaf.	Low	Buildings	6 months

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Est	Tag No.	Species	Age	Height	Height to canopy	North	South	East	West	Vitality	Safe Life	Category	Stem Dia (mm)	No. Stems	Observations	Management Options	Risk	Risk offered to	Priority
Est Position Est Dimensions	T1677	Sycamore	M	20	10	5	5	5	5	Fair	<10	U	450	1	Located on boundary. Single stem. Unbalanced crown shape. Significant asymmetry to the canopy. Crown distorted due to group pressure. Fire damage to surface roots and lower stem. Extensive damage to the root system.	Remove the tree.	Moderate	Buildings	12 months
Est Position Est Dimensions	T1678	Sycamore	M	20	6	5	5	5	5	Fair	10+	C	500	1	Located on boundary. Growing as part of a group at a higher level adjacent to neighbouring properties. Buttress obscured by Ivy. Single stem. Ivy has developed and prevented inspection. Moderate quantities of deadwood can be seen within the canopy. Ivy has completely swamped the canopy. Canopy form and small buds suggests low vitality.	Remove the Ivy and treat to prevent regrowth. Assess the vitality of the tree when in leaf.	Low	Buildings	6 months
Est Position Est Dimensions	T1679	Sycamore	M	22	4	6	6	5	6	Fair	10+	C	700	1	Located next to the boundary. Single stem with epicormic buttress and trunk shooting. Epicormic shooting indicates internal physiological stress. Minor quantities of deadwood can be seen within the canopy. Former T1 in 2019 report which was recommended to be re-scanned in 2021.	Assess the buttress using a Sonic Tomography to compare progression of decay and manage if required.	Low	Buildings	6 months

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Est	Tag No.	Species	Age	Height	Height to canopy	North	South	East	West	Vitality	Safe Life	Category	Stem Dia (mm)	No. Stems	Observations	Management Options	Risk	Risk offered to	Priority
Est Position Est Dimensions	T1680	Sycamore	M	22	4	5	3	5	4	Fair	10+	C	700	1	Located next to the boundary. A hole in the buttress leads to decayed volume. Single stem. Minor quantities of deadwood can be seen within the canopy. Former T3 in 2019 report recommended to be re-scanned in 2021.	Assess the buttress using a Sonic Tomography to compare progression.	Low	Buildings	6 months

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APPENDIX – SITE PLANS

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Assumed Site Boundary

Principle Access

Constant Occupancy

Frequent Occupancy

Occasional Occupancy

Rare Occupancy (Unshaded)

Title: Occupancy Rates Plan
Drawing No: BA11344
Date: 31/03/22
Drawn By: MM
Scale: Not to Scale.

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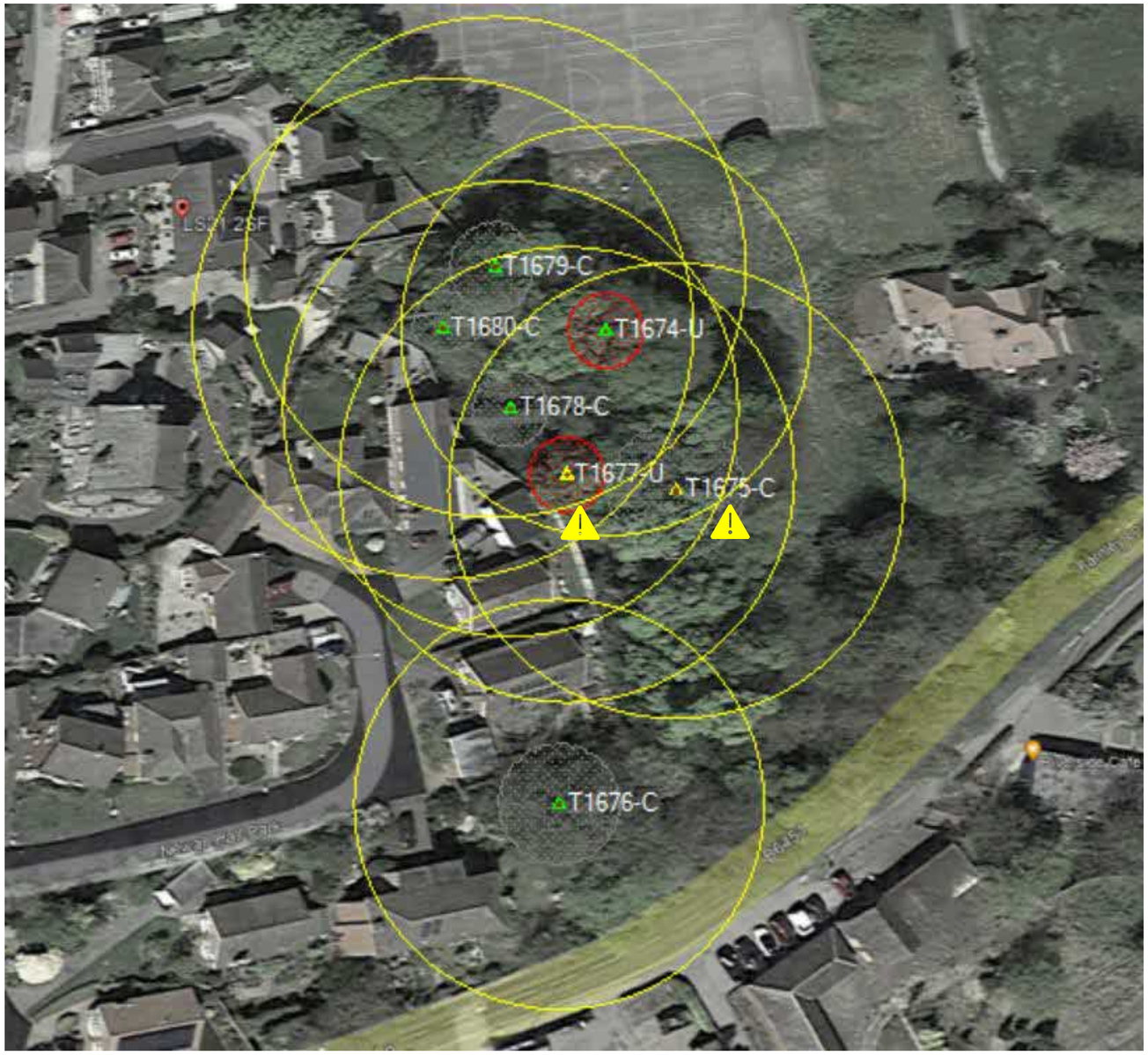

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- Assumed Site Boundary
- Target Zone (1.5 x Height)
- Management Issues
- Invasive Plants

- High Quality Tree
- Moderate Quality Tree
- Low Quality Tree
- Unsuitable Tree

- Low Risk Tree
- Moderate Risk Tree
- High Risk Tree
- Extreme Risk Tree

Title: Tree Location Plan
Drawing No: BA11344
Date: 31/03/22
Drawn By: MM
Scale: Not to Scale.

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APPENDIX – FURTHER ASSESSMENTS

Detailed below are the further assessments that have been identified during the initial site appraisal, these include both more detailed assessments to confirm the actual level of risk of trees highlighted in the report as well as the regular and seasonal assessment associated with normal site management.

Further Assessments:

T1674	Ideally, undertake Tomography of the buttress and lower stem to understand the extent of decay versus sound wood. Rope access equipment needed.	Within 6 months
T1675	Ideally, undertake Tomography of the buttress and lower stem to understand the extent of decay versus sound wood. Rope access equipment needed.	Within 6 months
T1679	Ideally, undertake Tomography of the buttress and lower stem to understand the extent of decay versus sound wood.	Within 6 months
T1680	Ideally, undertake Tomography of the buttress and lower stem to understand the extent of decay versus sound wood.	Within 6 months

Non-Urgent Further Assessments:

Whole site	Reassess periodically and particularly after high winds.	Advisory

Ongoing Assessment

Risk Assessment	Assess the areas populated by Trees and the risk offered by them to structures and site users.	Undertake on an 18 or 30 month cycle alternating assessments between periods when the trees are in and out of leaf.

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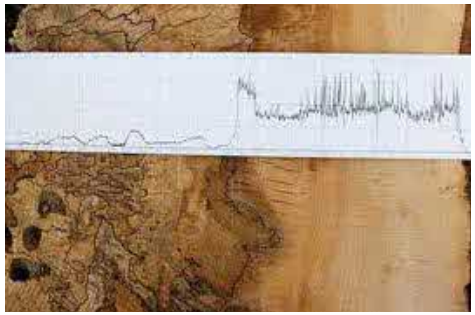
DETAILS OF FURTHER ASSESSMENT METHODS.

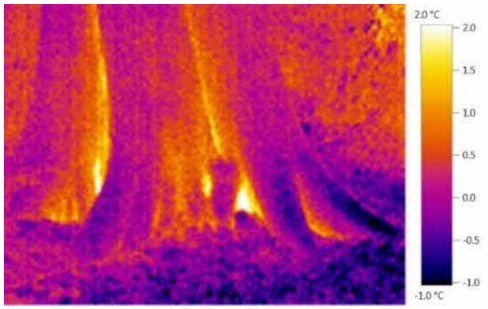
Please find below a brief outline of methods that can be employed to provide additional information in relation to possible internal decay and help make decisions on tree safety.

INCREMENT BORE - After screwing the tube into the tree, an extractor is used to remove the wood core. The thickness of sound wood can be measured accurately. Increment borers provide good information but create a significant hole (up to 1cm or so) that can breach a trees internal defence mechanism, we typically only use this where there is a significant safety concern or as a last resort.

RESISTOGRAPH - This measures the drilling resistance of a needle drill. Data can be displayed as a paper trace (shown opposite) or as a digital output for a more detailed assessment of the internal condition of the tree.
Again this method can breach a trees internal defence mechanism and as a result we only use this method where there is strong suspicion of decay or to confirm other test results.



THERMAL IMAGING CAMERA (TI) - Produce images upon the amount of infrared energy emitted, transmitted, and reflected by an object. A thermal imaging camera will show subtle temperature changes when the tissues of the wood or bark are altered or destroyed by physical actions or pathogens in addition to identifying areas of restricted vascular activity or destroyed tissues below the surface.



CHLOROPHYLL FLUORESCENCE

By measuring the capacity of a plant to carry out photochemistry this can provide a measure of health and identify impacts from a range of issues including stresses caused by environmental conditions.

It is used as a means of detecting physiological damage caused by biotic or abiotic stress factors.

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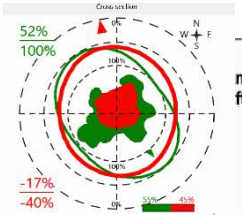
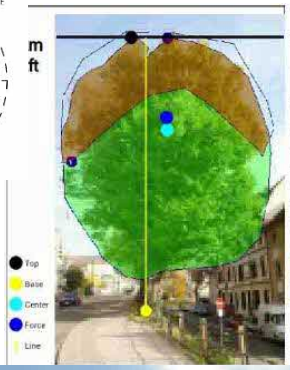
STRESS WAVE TIMER - Stress wave techniques are the equivalent of a single shot Tomograph. The time taken for a sound wave to travel across a known distance give an insight into the deterioration in wood structure. Deterioration in tree stems increases the time taken for the signal as the sound wave needs to travel around faults of decay or holes between the two sensors. The reference velocity depends on tree species.

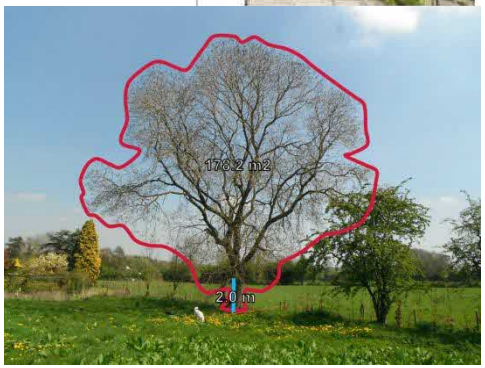
STABILITY MODELLING – Key dimensional information is used to compute various factors in relation to tree stability, enabling determination and comparative evaluation of:

- Tree wind load and centre of gravity.
- Safety improvement following crown reduction.
- Stability reduction by decay.
- Tipping-stability reduction by root decay and/or trenching.
- Enable safety-balancing between the retained stem cross-section and wind-load experienced by the tree.

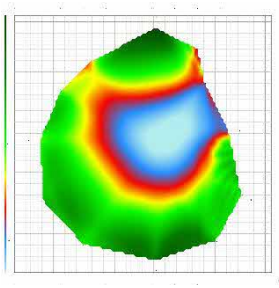
This allows the determination of strength loss due to structural defects in the cross sections of stems and branches and anchorage plate losses in relation to canopy size and expected wind-loads. In addition, the method enables evaluation of load reduction by crown reduction pruning to further achieve higher safety in damaged trees.

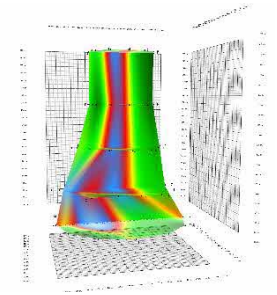




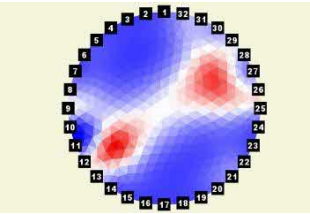


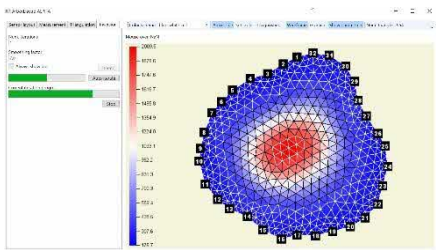
SONIC TOMOGRAPHY (SOT) - A non-invasive tool for assessing decay in trees – shown to the right. It works on the principle that sound waves passing through decay move more slowly than sound waves traversing solid wood. Sonic tomogram sends sound waves from a number of points around a tree trunk to the same number of receiving points, the relative speed of the sound can be calculated, and a two-dimensional image of the cross-section of the tree, 'a tomogram', can be generated. Using the differences in the transit times between each pair of sensors, the analysis software constructs a two-dimensional picture (acoustic tomogram), which show zones of differing sound transmission properties within the stem. These results can be combined with other scans in a 3D representation to provide a better understanding of the internal condition of the stem.





ELECTRICAL IMPEADANCE TOMOGRAPHY (EIT) – This method gathers chemical information about the wood such as water and/or ion concentration and physical properties that provides information about the internal condition of the stem. Low resistivity can identify increased moisture content, whereas hollowed structures cause increases in resistance. After collecting all the measurements, the information is displayed in the form of a coloured distribution plan for analysis as shown opposite. Again, these results can be combined with other scans in a 3D representation to provide a better understanding of the internal condition of the stem.





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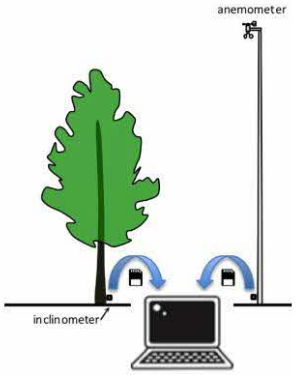
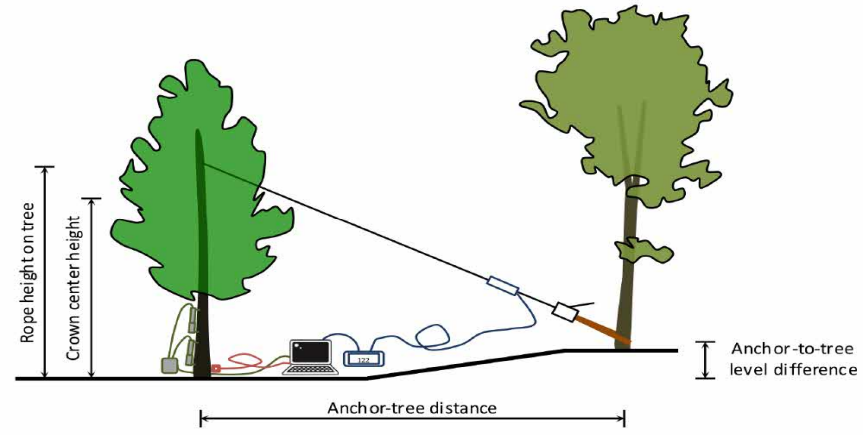
Dynamic Tree Stability - Sensors attached to the base of the tree enable us to test the root anchorage & stem stability. When wind blows trees start to sway and this load is transmitted into the ground via the stem and root plate - transferred to the root plate. We use sensors to record sway motion of trees in natural winds. The motion of the tree shows the real response of a tree to the natural conditions and enable identification of excessive movement and helps identify weak trees.



STATIC PULLING TEST - The tree-pulling test provides information about the breaking stability of the trunk and the stability of the roots. It is used to assess a tree's stability with regard to stem fracture and uprooting precisely and non-invasively.

In a pulling test, a load (substituting for the wind) is exerted on a tree using a winch and a steel cable. The reaction of the stressed tree under this defined load is measured with high resolution devices (elastometer and inclinometer), and the data obtained are compared with those of sound trees. The major components to be considered in such calculations are the wind-load (the surface of the load-bearing structure, tree height, etc.) and the material properties of green wood.



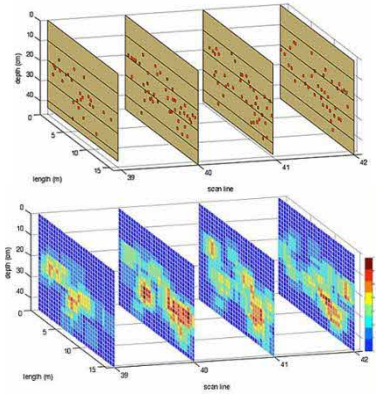
Root Mapping with Tree Root RADAR

Understanding where tree roots are is of key importance, Ground Penetrating Radar (GPR) measurement provide a high level of detail mapping tree roots down to 1cm and has several advantages.

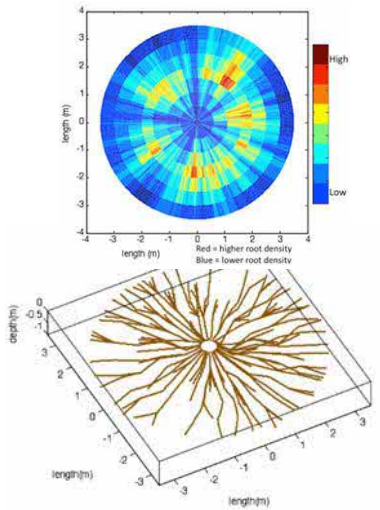
It is capable of scanning root systems of large trees under field conditions in a short time and is non-invasive, does not disturb the soil or damage the tree.

Tests can be repeated and may reveal long-term root system development and can be undertaken beneath hard surfaces (concrete, tarmac, brick) in roads and within buildings,

Create 2D Virtual Trench
Showing the location of roots
Or Showing Root Density



2D Density plans or 3D Morphology Plans



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APPENDIX – TREES & RISK

Tree owners should take a balanced and proportionate approach to tree management

It is recognised that trees are managed for a variety of reasons and therefore that the expectation of a "suitable and sufficient risk assessment" referred to by the HSE varies with context. In general, the risk from trees has certainly reached the situation where residual risks (those that remain after management for safety) are sufficiently low that investment in additional measures is likely to be disproportionate to any safety benefit. As the HSE itself notes in Reducing risks, protecting people:

> "Any informed discussion quickly raises ethical, social, economic and scientific considerations, for example: ... how to achieve the necessary trade-offs between benefits to society and ensuring that individuals are adequately protected; the need to avoid the imposition of unnecessary restrictions on the freedom of the individual."

Extremely low risk of harm

HSE guidance for its inspectors and local authority enforcement officers on the standard of tree risk management and the DARM research commissioned by the NTSG on behalf of landowners confirm that the overall real risk of serious harm from trees in the UK is "extremely low". Indeed, the levels of risk are so low that they are "comparable to those that people regard as insignificant or trivial in their daily lives", near the bottom of the spectrum of what the HSE considers as an acceptable risk:

> "Risks falling into this region are generally regarded as insignificant and adequately controlled. We, as regulators, would not usually require further action to reduce risks unless reasonably practicable measures are available. The levels of risk characterising this region are comparable to those that people regard as insignificant or trivial in their daily lives. They are typical of the risk from activities that are inherently not very hazardous or from hazardous activities that can be, and are, readily controlled to produce very low risks."

Reasonable risk management generally aims to provide trees that can be regarded stable in a normal / foreseeable, regularly experienced storm event in relation to the situation / context of the tree. In this region, it is reasonable to assume a 'Storm' of force 10 using the Beaufort Scale (55 - 63 miles per hour) of wind speeds on land will occur annually. It should be realised that all trees do pose a risk; recent work in Germany has shown even sound trees that would typically be regarded as safe can fail during high winds through various factors relating to wood physiology, dynamics and the relationship between the root system and the supporting soils. It should be remembered that for any given tree regardless of its stability, there will always be a wind load that has the potential to break or uproot a tree regardless of its condition.

Typically, trees have evolved to fail in part, i.e. twigs and branches are sacrificed / fail from a parent tree rather than the tree being lost entirely. Observations at various sites in this country have found that twigs and branches can break from trees at wind speeds of as little as 31 miles per hour, the upper limit of a 'strong breeze' as detailed in Beaufort Scale 6 (25 - 31 miles per hour). This has led to a recommendation for certain sites with grounds open to the public to be closed when the wind speeds approaching 'Near Gale' or Force 7, as detailed by the Beaufort Scale (32-38 miles per hour). Such failures are difficult to predict with any great level of detail and a general position is best adopted. Typically, the level of risk offered by trees will be significantly greater as the force of the wind increases, the threat from aerial parts i.e., deadwood, tight unions and elongated branches may remain even following remedial works. Branch failures are likely to be limited to small diameter branches and to periods of extreme weather, though as often seen in any natural model, exceptions to the rule can be expected. Therefore, although in managing trees we are aiming to limit or reduce the risk to nearby features, unfortunately it is not possible to remove the risk offered by a tree entirely.

As an arborist, I am a tree specialist and use my knowledge, education, training and experience to examine trees, to recommend measures to enhance their beauty and health, and attempt to reduce the risk of living near trees. As a client, you may choose to accept or disregard these recommendations, or seek additional advice. As an arborist, I cannot detect every condition that could possibly lead to a tree or limb failure. Trees are living organisms that may fail in many ways, some of which we do not fully understand.

Conditions are often hidden within the tree and below the ground. As arborists, we cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period, of time. Sometimes trees may appear "healthy," but may be structurally unsound. Likewise, remedial treatment, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the arboricultural perspective, such as property boundaries and ownership, disputes between neighbours, planning issues, sight lines, landlord-tenant matters etc. Arborists cannot take such issues into account unless complete and accurate information is given to them. Likewise, as an arborist, I cannot accept any responsibility for the authorisation or non-authorisation of any recommended treatment or remedial measure. Furthermore, certain trees are borderline cases as to whether they should remain or be removed. Also, conditions change, and a tree may need further monitoring in the future to determine its health and structure.

Even healthy trees unaffected by defects can fail in extreme weather conditions.
Trees can be managed, but they cannot be controlled, and to live near a tree is to accept some degree of risk.

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APPENDIX – LEGAL ASPECTS OF TREE MANAGEMENT

The laws relating to trees are included within both common and statue law and need to be considered when managing trees, particularly those trees on neighbouring land. Statue Law is written down in Acts of Parliament and encompasses areas of administrative, constitutional and criminal law. Common Law is about dealings between individuals and is formulated by precedent or past cases. Many aspects of Common Law fall under the branch of law known as TORT. These are not crimes but civil wrongs and are committed by one private person against another.
Trees may cause friction between neighbours which may end up as legal disputes. In an ever more litigious society, it is as well to have some idea of your legal rights and obligations. Problems caused by growing trees cover ownership, dangerous trees, protruding branches and encroaching roots.
The Principle Laws relating to trees are set out below:-

Statute Law

Town and Country Planning Act 1990
This Act contains legislation which gives powers to the Local Authority (LA) to protect single or multiple trees by way of a Tree Preservation Order (TPO). The order prevents anyone from pruning or felling the tree without permission from the LA; anyone considering felling or pruning without such permission should consider the maximum penalty of £20,000 which the courts could evoke. Without this legislation many of our mature trees would have been lost. Additionally, this act contains legislation to protect the immediate pruning and felling of trees contained within Conservation Areas.

Forestry Act 1967
This Act contains legislation which gives the Forestry Commission powers to control the quantity of trees being felled at any one time.

Anti-social Behaviour Act 2003
Part 8 of the Anti-social Behaviour Act 2003 creates new procedures to enable local authorities in England and Wales to deal with complaints about high hedges.

Highways Act 1980
This Act covers laws associated with roads. Section 41 states that the Highway Authority (H.A) have a duty to maintain the highway.

Local Government (Miscellaneous Provisions) Act 1976
This Act contains legislation in sections 23 and 24 that enables the Local Authority (LA) to deal with dangerous trees on private property. An example of such a situation could be 'that a tree is dangerous to third parties and the owner refuses to make it safe; the LA can serve notice on the owner to make the tree safe, if the owner still refuses then the LA can enter on to the owners property to make the tree safe and recover the expenses incurred from the owner'.

The Occupiers Liability Act 1957/1984
This Act lays down a duty for occupiers to take reasonable steps to ensure that premises (including woodland) are reasonably safe for visitors permitted to be there. This affects managers of woodland and forest who need to make regular safety inspections of trees adjacent to car parks, footpaths, picnic areas, public areas etc.

Access to Neighbouring Lands Act 1992
Should someone need to enter onto someone else's land to carry out works to their own land but cannot do so because the owner refuses consent, they can use the legislation contained within this act to apply to a court for an access order. The courts will only grant such an order if it is satisfied that the works are necessary and that they cannot be carried out, or would be

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substantially more difficult to carry out, from the owners own land. Such works include, amongst other things, the felling, removal or replacement of any hedge, tree, shrub etc which is, or is in danger of becoming, a hazard and danger.

Hedgerow Regulations 1997 (applying to native field hedgerows)
In response to the wide spread loss of our hedgerows within the countryside the government has developed these regulations in an attempt to reduce and regulate further losses. The regulations were made law in 1997 and fall under Statutory Instrument (SI) No 1160; they describe the criteria and exemptions applicable to protected hedges. The regulations are published in their entirety on the HMSO web site; however, for those of you who would prefer an easier read, the Department of Environment produce a leaflet and book explaining the regulations in a brief and easy to understand way. The leaflet is called 'The Hedgerow Regulations'.

Common Law

In addition to Statue Law the development of Case law has provided basic principles of tree management of trees which overhang boundaries or develop beyond boundaries.

If branches from a neighbour's tree overhangs your property you may cut these branches back to the property boundary [See note 1 below]. Although you do not need to obtain permission from the tree owner to carry out these works it would be neighbourly to notify them of your intentions. However, you must first obtain permission from the owner if you need to enter onto their property to carry out such operations. The removed branches (and any fruit) remain the property of the tree owner and should be offered back to them!
Just as branches can be pruned back to the property boundary, so can a neighbouring tree's roots. However, it is recommended that professional advice be obtained prior to such operations. [See note 1 below]. It may be possible that you can claim compensation in respect of damage caused by roots from neighbouring trees, if you have problems with such damage it is advised that you contact a solicitor for more information.

Note 1: You should take care not to promote disease or decay by poor pruning technique or unbalance a tree by severing anchor roots or by removing large limbs from one side of the tree only; should the tree subsequently fail due to your actions, you may be liable for any damages caused by your actions (seek professional advice if you are unsure). If the tree is located within a conservation area or is subject to a TPO then permission must be obtained from the Local Authority prior to any branch or root pruning operations.

Common Problems

These various laws provide guidance on tree management and helps form the basis of reasonable management principles. I have included some general information in relation to common situations, if you require any additional information please feel free to contact me.

LOSS OF LIGHT
There is no absolute right to light or to a view, therefore you would normally need to negotiate with your neighbour about managing their trees. In extreme cases it is possible to apply to a magistrate's court for an injunction to control or restrict the growth of trees however this requires specialist legal advice and only applies in limited circumstances – there is also no specific law on how tall trees are allowed to grow and cases for loss of light normally only apply to windows in buildings not gardens (see also 'high hedges' below).

THE RIGHT TO LIGHT
The "right to light" is often quoted in relation to trees cutting out light to adjacent property. Whilst there is an established right in the case of new buildings obstructing light there is no clear precedent that trees cutting out light can infringe a person's "right to light".

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DANGEROUS TREES

Every tree owner has a general duty of care to ensure their trees do not pose an unacceptable risk to other people on or adjacent to their land – you will however only be liable for injury or damage caused by trees if you are found to be negligent in some way e.g., by not taking reasonable care to inspect them or undertake essential work such as removing deadwood that could easily be seen to be hazardous etc. Any work must be limited to that required to remove the immediate danger. The burden of proof is on the tree owner and the person doing the work to prove that it was necessary for urgent safety reasons. This can be very difficult after the event and professional arboricultural advice should be taken before carrying out any urgent works. It would also help if photographs were taken of the tree and the defects which create the need for the emergency work.

FALLING LEAVES, FRUIT/FLOWERS, DEBRIS

Although they can cause a lot of inconvenience, falling leaves & debris are not regarded as a 'nuisance' in the legal sense and a tree owner has no obligation to clear them – it is normally up to each landowner whether they own a tree or not to undertake their own 'property maintenance' if for example, they need to clear paths or gutters. Where leaves are making the footpaths and road slippery or unsafe Street Cleansing should be notified to ensure the paths are swept and are safe and clean.

HIGH HEDGES / CONIFERS (Leyland Cypress)

This relates to evergreen or semi evergreen hedges only, not ordinary deciduous trees. It is sometimes possible to apply for enforcement action from the Council to restrict the growth of a neighbours' hedge if it exceeds a certain height in relation to its distance from a property. There are specific criteria for doing this and also a cost.

TREE ROOTS & DAMAGE TO PROPERTY

If a tree is found to be causing damage to a neighbouring property it is classed as a legal nuisance and the tree owner would normally be liable for the associated costs of any loss or damage. In the event of any form of damage it is advised that you notify your neighbour and also contact your property insurers for further advice – they can often investigate and deal with the issue on your behalf.

TREE POSITION - GENERAL NUISANCE AND INTERFERENCE

Although trees may be considered an inconvenience to those living adjacent to them, by law they must be shown to be a substantial interference to a neighbour's comfort and convenience to be considered a 'nuisance'. As a general policy the Council will not undertake the topping, thinning or felling of trees simply to prevent the accumulation of leaves, seeds or minor debris on adjacent property, where the trees in question would not otherwise require any surgery.

UTILITY SERVICES

Instances of underground pipes being broken by the growth of tree roots are very rare, but penetration and blockage of damaged pipes is not uncommon. As a general policy the Council will not undertake the topping, thinning or felling of trees to prevent roots entering damaged pipes. Repair of the defect in the pipe is the only certain remedy that will prevent future problems. Modern materials and joints will significantly reduce pipe damage and subsequent root encroachment in the future.

TV & SATELLITE RECEPTION

TV interference can be caused by trees however there is no legal right to TV reception. We recommend you consult a television engineer to assess your aerial/signal.

TREES AND IVY

Ivy is a climbing, scrambling plant abundant as a groundcover shrub in the under storey of many rural woodlands. It has a variety of conservation benefits and forms an integral part of a woodland's habitat. In the urban environment there is the need to balance three main considerations for its retention: tree safety, conservation and aesthetics. Ivy generally causes no direct damage to trees. However, in some situations it may be considered unsightly and more importantly can create problems for efficient management by obscuring structural defects and fungal

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fruiting bodies. It also increases the weight of a tree's crown and the 'sail' effect during the wet windier winter months, when deciduous trees have shed their leaves. As a general policy the Council undertake the removal of ivy from trees only where it is considered necessary to aid visual tree health assessment.

INSPECTIONS

Landowners are responsible for all trees within the boundary of their property. They have a duty to maintain the trees in a safe condition. To discharge this duty an owner must ensure the trees are inspected regularly for any signs that they are unsafe. The importance of regular, detailed inspections is to minimise the likelihood of damage or injury occurring if the tree or parts of it were to fall. If the risk is high, e.g., a large old tree next to a road, the importance is much greater. An owner without specialist knowledge would be expected to employ a suitably experienced and qualified arboriculturist to inspect them every 1 to 3 years depending on the degree of risk.

TREES OBSTRUCTING THE HIGHWAY

The Highways Act 1980 requires that trees and other vegetation do not obstruct the passage of users. The Highway Authority requires a minimum clearance over any part of a footpath of 2.4 metres and over any part of a road of 5.2 metres. The Highway Authority have the powers to enforce these clearances. If the tree is protected by a Tree Preservation Order (TPO) or growing in a Conservation Area you should consult the Borough Council's Arboricultural Officer before carrying out any work.

PLANTING OF TREES

Generally, trees can be planted anywhere on a property and there is no requirement for trees or hedges to be set back a certain distance from the boundary. However, restrictions may exist through other controls such as covenants or planning controls.

HEIGHT OF TREES

There is no maximum height beyond which tree owners must not allow their trees or hedges to grow. They can be as tall as the owner wishes, provided they do not cause damage to adjoining property unless restrictions are imposed through other controls such as covenants or planning conditions.

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BARNES associates ltd
SURVEY MANAGE IMPROVE

Unit 1 Foundry Yard, New Row
Boroughbridge YO51 9AX
[redacted]
Company Number 10438116
Registered in England and Wales

TREE SURVEYS

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Veteran & Venerable Trees
Legal & Law (TPO & Valuations)

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Tree Stability Checks
Tree & Plant Health Care
Root Detection & Mapping
Aerial Inspections

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Impact Assessments
Method Statements
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LVIA (Landscape Visual Impact Assessments)
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