

A view of the trees which provide great visual aesthetics, screening and wildlife benefits

Arboricultural Assessment & Report

Date of assessment
29th February 2024

Site
The Limes
76 Daisybank Road
M145GL

Instructed by
Knowlesly GM Services

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1.0 Instructions

1.1 I have been instructed by Knowlesly GM Services to visit the site of The Limes, 76 Daisybank Road, M145GL to assess trees within the boundaries.

1.2 The purpose of the report is to assess the risk of trees to people and infrastructure:

a) The tree owner seeks to ensure it reasonably meets its duty of care by demonstrating a defensible, proactive tree management regime.

b) Visually inspect trees growing within the site.

c) Identify trees that pose an unacceptable risk and recommend remedial works to reduce risk to acceptable levels.

d) Provide a report in order to assist in planning and management of the trees.

1.3 It was agreed that a basic level of inspection be applied to the trees in order to aid the preparation for an Arboricultural Report including tree and risk assessment, report findings and mitigation recommendations if required.

1.4 A suitable management plan with recommendations is required in accordance with current Arboricultural best practice BS3998: 2010.

2.0 Report Limitations

2.1 The inspection will identify defects and other failure-prone characteristics of the tree where these features might be reasonably anticipated to cause an unacceptable risk. It must nevertheless be recognised that no tree is entirely safe, given the possibility that an exceptionally strong wind or other unusual circumstances could damage or uproot even a mechanically ‘perfect’ specimen.

2.2 While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, no responsibility can be accepted for damage or injury sustained as a result of the failure of any tree due to faults not apparent during a visual, ground-level based inspection or to faults developing subsequent to the survey.

2.3 Similarly, no liability can be accepted for the condition of a tree that was obscured in part or in whole (e.g., by structures) nor for any that proved inaccessible at the time of the inspection. Certain features which might provide evidence of on-going decay or decline (such as seasonal fungal fruiting bodies, damage to foliage, insect emergence holes etc.) may not have been in evidence; only those features that are apparent at the time of the inspection can be assessed.

2.4 Underground services were not confirmed around the trees surveyed. The potential influences of trees upon buildings or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effect of incremental root growth are specifically excluded from this report.

2.5 The report reflects the trees as found on the day surveyed. Changes in ground levels, soil conditions, surrounding tree cover or land use, or any ground works within the root zone of any tree may invalidate the content of this report. No root zone excavation was undertaken

3.0 Introduction

3.1 My name is Andrew McLoughlin and I have been the author and the Managing Director of Treestyle Consultancy Ltd since 2001. I have a National Certificate in Arboriculture and a MArborA in Arboriculture. Qualified Arboriculturist since 1998. ISA Tree Risk Assessment Qualification, Quantified Tree Risk Assessor. Ancient and Veteran Tree Expert. I am a professional member of the Arboricultural Association and a member of Consulting Arborist Society.

3.2 The report is based upon data collected on the 29th February 2024 by A McLoughlin.

3.3 The trees surveyed were highlighted by Alan who requested this service, this is Treestyle Consultancy's initial site visit.

3.4 Concerns have been raised regarding the safety of trees due to a recent failure near to the developments, especially as there are many large mature trees on the site.

3.5 The methodology for the procedure and for the preparation for this document is as follows:

- Communication with the client to gain an understanding of the site history.
- Carry out a Visual Tree Assessment (VTA) with the aid of a nylon mallet.
- Assess the trees life potential and their visual amenity value.
- Tree risk assessment.
- Recommend mitigating measures and actions if necessary.

3.6 The trees were assessed at a basic level. A VTA was completed wherever possible, however, trees covered in ivy or on inaccessible land will have had a limited visual assessment. An explanation of these can be read in Appendix 1.

3.7 The trees provide outstanding visual amenity value by creating urban greening, an area for recreation and an outstanding wildlife habitat. High occupancy target areas being residential properties and busy public highways with vehicles in places being permanently beneath tree canopies. The trees proximity to buildings and vehicles beneath canopies do create a risk of falling branches, however, where trees and people coincide there will always be an element of risk.

N.B. Target areas are places where a tree or tree part could fall and land on a vehicle, structure or a person causing damage or injury or disruption.

4.0 Findings

4.1 Below is a description of what was found on site;

- Four groups of trees and twenty eight individuals were recorded.
- The species recorded were ash, willow, sycamore, cherry, alder, lime, laurel, horse chestnut and elder.
- Trees are part of a wider conservation area.
- Google maps shows trenching history along the public highways.
- Outstanding habitat potential.
- There is relatively high green coverage with good age and species diversity.
- Generally areas of high occupancy all around the site with residential buildings, public highways and parking overhung by large trees.
- Recent tree planting.
- Great screening from roads and neighbouring residential properties.

4.2 Visual Tree Inspection (VTA)

- Generally the tree work identified needs attention within the next 6 to 12 months, however a heavily declining sycamore and a dead cherry are required within 1 month.
- Trees were noted as having mechanically weak structures with poor stem attachments.
- Ash dieback *(Hymenoscyphus fraxineus)* has been identified on site (ADB).
- Trenching of tree roots has caused tree stress.
- Several large and small trees have been identified as having mechanically weak structures.
- Restricted visual assessment on trees due to dense vegetation and ivy smothering trees.
- Declining and dead standing trees were documented.
- No post tree planting maintenance.
- Neglected areas have trees growing too close to the wall.

5.0 Analysis

5.1 Based on the following: VTA, interpretation and risk assessment, there is a high probability of a tree or tree part falling and causing injury prior to the next inspection.

5.2 Trees have been identified as having weak mechanical structures due to their poor form with V shaped unions and bark inclusion. These unions have been recently researched to have up to 42% weaker structure than a convention stem/branch union (D Slater 2016). Whilst failure has not yet occurred with the increased age and size of the tree comes the increased probability of failure.

5.2.1 Where trees with mechanically weak structures are not protected from the elements, high occupancy and sensitive targets where activity or structures that have the potential to cause injury or be damaged then this would be an unacceptable level of risk.

5.2.2 Large stems/limbs with bark included unions, some with an element of exposure overhanging high risk occupancy targets may contribute to an unacceptable risk.

5.2.3 Trees with mechanically weak structures, restricted exposure and low to moderate occupancy target areas can be considered as having acceptable levels of risk.

5.2.4 Small trees and shrubs with mechanically weak structures have low failure potential and lower risk.

5.2.5 Whilst T25 ash *(Fraxinus excelsior)* has biological issues its mechanically weak codominant stems with included bark creates an additional issue. I.e. it is leaning. Relatively exposed and within reach of a neighbouring residential property.

5.2.6 It's neighbouring sycamore *(Acer pseudoplatanus)* has a similar mechanical weakness with multiple stems, however, it is difficult to confirm due to dense ivy restricting the visual assessment.

5.3 Environmental issues with global warming are influencing trees where long periods of drought and urban heat traps are greatly reducing a trees life potential .

5.3.1 Drought is a common feature where soil compaction restricts are not allowing for precipitation into the soil profile to allow for trees roots to access essential water. Similarly trees are restricted with the root transpiration causing irreversible stress.

5.3.2 Tree root trenching can be seen with trees lining the public highways from Google maps several years ago. Not only is this detrimental to a trees health by creating an entry point for pathogens, it reduces its ability to access water and nutrients. Additionally, it causes destabilisation of their entire structures. Often the damage takes several years to manifest itself causing entire tree failure. However, no signs of stress were documented.

5.4 Many trees were noted to be housing ivy. Whilst this is not considered detrimental to a trees health, it does restrict the visual tree assessment process (VTA) in hiding biological or mechanical issues which might otherwise contribute to failure. Where trees have the potential to cause damage, disruption or injury then the management of ivy is fundamental to allow the assessor to complete a full VTA.

5.5 One of the greatest threats to the tree population and to the health and safety of staff and neighbouring residents is with the infection of ash *(Fraxinus excelsior).* These trees were noted as having the initial stages of ash dieback *(Hymenoscyphus fraxineus)* (ADB) which greatly reduces the trees life potential and increases the levels of risk, especially in light of the size of these trees and their target areas.

5.6 The removal of so many trees due to biological and mechanical issues creates wind throw potential with the remaining trees due to unnatural exposure to the elements.

5.7 The group of trees located in the north western corner has been grossly neglected and as a result the area now presents an unacceptable level of risk due to biological and mechanical issues. Trees are suppressed, stressed and within proximity to walls and structures.

5.8 Whilst a group of trees have been planted and are well establishing well, the lack of post tree planting maintenance will restrict their development. This can be seen where tree ties and their posts are still in situ, they will eventually strangle the trees resulting in their early mortality.

6.0 Conclusion

6.1 The green infrastructure is a great asset to the future developments, local community and wildlife. With ownership of such trees comes not only responsibility for safety, but for the upkeep of the tree population. The summary with the areas of concern are as follows:

- The group of trees in the northwest corner are in desperate need of attention.
- Trees with mechanically weak structures whilst failure hasn't occurred yet with increased age and size comes the greater probability of failure.
- The lack of age diversity with the lime trees greatly reduces the longevity of the green infrastructure.
- Ash dieback *(Hymenoscyphus fraxineus)* is present and will see extensive tree loss within the wooded areas greatly increasing the wind throw potential of the remaining and reducing the stabilisation of the embankment.
- Newly planted trees are generally coping well but are lacking post planting maintenance.

6.2 Ash dieback *(Hymenoscyphus fraxineus)* is estimated to kill up to 90% of the ash population and cost the UK economy £15 billion in the next few years. Therefore any of these species should have in place a contingency plan for the eventuality of their death. ADB infection was not fully observed and it is expected the ash trees within the grounds will die over a very short period of time, predominantly because the trees are of a young age which makes them more susceptible to the disease.

6.2.1 The greatest threat of injury from ADB is with falling deadwood. Some of the trees are structurally sound, however, they do have limited life potential which will only increase with their risk potential in the coming years as secondary infection takes hold.

7.0 Recommendations

7.1 It is recommended that all trees included in this survey be re-inspected on a 15 month cycle in light of global warming and globalisation. This will allow the inspector to view the trees over different seasons of their annual cycle (dormancy in winter, bud burst in spring, full leaf in summer, leaf drop and fungal activity in autumn). If there are any questions regarding ADB infection then this should be communicated with a suitably qualified arboricultural consultant as opposed to a tree surgeon.

It is paramount that the tree work stated in Appendix B Tree Schedule be carried out in the time frames stated. In general, the recommendations are as follows:

- Where mechanically weak tree structures have been identified then action will be required either in the form of complete removal, bracing or remedial pruning to mitigate future tree removal/loss.
- Walking the site after a storm, strong winds and heavy prolonged spells of rain, checking for potential issues / changes in the tree population.
- Tree planting is essential to mitigate tree loss, especially in-between the limes so as to create greater screening and to increase the age diversity.
- Proactive post tree planting management.
- Monitor for ADB.
- Install adequate tree protection in accordance to BS5837 Tree in Relation to Demolition, Design and Construction Recommendations 2012.

Signed  Date 5th March 2024

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8.0 Disclaimers

8.1 This survey was carried out from ground level. No aerial inspection was undertaken and, as such, this report can only identify defects clearly visible from the ground. A VTA (Visual Tree Assessment) is a level two arboricultural tree survey. This normally involves a full 360 degree visual of the buttress, stem and crown of the tree. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.

8.2 No tree is entirely safe given the possibility that exceptionally strong winds could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from distinct defects or from other failure-prone characteristics of the tree or the site.

8.3 Underground services were not confirmed around any of the trees surveyed. The potential influences of trees upon building or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effect of incremental root growth are specifically excluded from this report.

8.4 The report reflects the tree stock as found on the day surveyed. Change of ground levels, soil conditions, surrounding tree cover or land use, or any ground works within the root zone of any tree may invalidate the content of this report. No root zone excavation was undertaken.

8.5 Change of circumstance as a result of unusual weather conditions may invalidate the content of this report. It is recommended that trees should be reassessed after strong gale, 39 – 46 mph wind Beaufort scale 8.

8.6 The content of this report is valid for 12 months from the cover date. Any works recommended for beyond this time period are based on expectations rather than in response to currently identified defects. Trees should have their condition reinspected by a qualified arboricultural consultant within three years of this report being written.

9.0 Appendices

The system of Visual Tree Assessment (VTA) was practiced with the International Society of Arboriculture (ISA) Best Management Practice (BMP) and was used with the guiding principles of a Level 1 and Level 2 inspection.

The normal Level 2 "basic" assessment which involves a full 360 degree view of a tree crown, stem and potential rooting area could not always be carried out, especially where a tree population is located on third party land where access cannot be gained. These areas were inspected at a Level 1 "limited visuals". This is deemed ample for its inspection due to the low occupancy of the areas beneath.

Levels of Tree Assessment

- Level 1 Limited Visual Assessment; A visual assessment of an individual tree or a population of trees near a specified target, conducted from a specific perspective, in order to identify certain obvious defects or specified conditions. Observations are made from ground level or via a drone.
- Level 2 Basic Assessment; A detailed visual inspection and assessment of a tree and the surrounding site, commonly found to possess a hazard. The basic assessment requires the tree risk assessor to complete a 360 degree view of the tree observing crown, stem and potential rooting area. Tree dimensions are recorded using hand tools and the trees in question mapped and listed on a schedule.
- Level 3 Advance Assessment; An advanced assessment is performed to provide detailed information about specific tree parts, defects, targets or site conditions. Methods of advanced assessment can include climbing, decay detection and/or root excavations.

10.0 Bibliography

Collins field guide for trees of Britain and Northern Ireland - A. Mitchell

Pruning of trees and shrubs and conifers - Brown / Kirkham second edition

Principles of Tree Hazard Analysis and Management - D Lonsdale No 7

11.0 References

British Standards 3998 Tree Work Recommendations 2010

British Standards BS 5837, Trees in relation to design, demolition and construction – Recommendation 2012

British Standards 42020 Biodiversity - Code of Practice for Planning and Development 2013

British Standards 8545 Trees: from nursery to independence in the landscape - Recommendations 2014

International Society of Arboriculture Best Management Practice Tree Risk Assessment 2013

NTSG - National Tree Safety Group - Common Sense Risk Management of Trees

12.0 Useful web links

Ash dieback https://treecouncil.org.uk/science-and-research/ash-dieback/public-guidance/

www.forestresearch.gov.uk/tools-and-resources/Zhr/pest-and-disease-resources/ash-dieback-hymenoscyphus-fraxineus/

Common Sense Risk Management of Trees hVp://ntsgroup.org.uk/wp-content/uploads/ 2016/06/FCMS025.pdf

Grey squirrels www.woodlandtrust.org.uk/mediafile/100263520/ps-wt-2014-greysquirrel-management-ps.pdf?cb=3819311e674241c0924fedcb48a432f9

Tree Planting Manual www.forestresearch.gov.uk/tools-and-resources/urban-treemanual/

The Toxic School Run https://downloads.unicef.org.uk/wp-content/uploads/2018/09/UUKresearch-briefing-The-toxic-school-run-September-2018.pdf?_ga=2.193405678.2100286032.1575282622-1110326809.1575282622

Houses of Lords debate June 2019 https://hansard.parliament.uk/Lords/2019-06-11/ debates/E3CE49E4-DF0D-4221-9885-7E58D2CF0B71/Children'SHealthVehicleEmissions

Funding for Tree Planting

https://www.woodlandtrust.org.uk/plant-trees/schools-and-communi,es/ https://treecouncil.org.uk/take-ac,on/grants-for-trees/ https://treecouncil.org.uk/schools-and-education/

13.0 Photographs



The image on the left show two large ash with biological and mechanical issues, covered in ivy and overhanging a residential property and street parking. These are in desperate need of management.

Below is G31 where a neglected area of land has declining trees, trees covered in ivy, failing, mechanically weak structures overhanging parking





Left is seen the dead cherry at the front with the ash suffering from ash dieback in background



Left is the mechanically weak structure of T27 where this large ash tree has a codominant stem with bark inclusion and overhanging a residential apparent seen in the picture below

Middle shows newly planted trees with neglected post tree planting management





Similarly T28 sycamore has multiple stems with bark inclusion overhanging a residential property. Covered in ivy restricting the visual assessment

14.0 Glossary

Abbreviation	Term	Explanation
DBH	Diameter at Breast height	The diameter of the tree trunk in question, 'breast height' is taken to be 1.3 metres above ground level. Multi-stem trees have their stems measured separately and indicated as so in the tree schedule. Trees with abnormal growths, branch unions or other obstructions at 1.3 m will have their measurements taken immediately below said obstructions.
VTA	Visual Tree Assessment	A system of tree inspection devised by Claus Mattheck using visual signs to read the body language of trees & aid with the diagnosis of potential defects.
Y	Young	Tree which has not yet established a significant rooting structure in the ground & has not developed a significant branching structure - its form is largely 'whip' like in nature & it could normally be easily transplanted or replaced.
EM	Early Mature	Tree which has established a significant rooting structure & has developed a noticeable internal scaffold structure, it differs from a mature version of its species only in size but not in relative proportions of its structure. Trees in this age class will still be developing significantly in height & spread.
M	Mature	Tree which has established a significant root-plate & which is over 50% of the way through its usual life expectancy. Trees in this age class will still be developing significantly in spread but less significantly in height.
OM	Over Mature	Tree which has fully established & will no longer be able to continue increasing in size due to its age, it may be showing signs of decline such as localised dieback but does not need to do so by definition. However it should be expected that signs of structural deterioration will soon become apparent.
V	Veteran	Tree which is showing veteran tree characteristics such as very significant crown retrenchment, extensive internal cavitation & possess significant cultural, ecological &/or historical value. Size is a common indicator of these characteristics but is not an essential requirement, for example, ancient coppices may possess veteran tree characteristics but may have a stunted form.
	Retrenchment	The progressive reduction in the size of the crown of an old tree, by means of the dieback or breakage of twigs and small branches, accompanied by the enhanced
	Codominant stem with included bark	Two stems on a tree which can suggest a weakened union V union with barkinclusion
	Minor Deadwood	Deadwood under 50 mm in diameter
	Major Deadwood	Deadwood which is equal to or greater than 50 mm in diameter
	Risk	Risk is the combination of the likelihood of an event and the severity of the potential consequences. In the context of trees, risk combines the likelihood of a conflict or tree failure occurring and affection a target with the severity of the associated consequences personal injury, property damage, or disruption of activities
	Abiotic	Damage caused by a physical nature rather than biological, no derived from living organism, abiotic chemical reaction
	Biotic	Relating to or resulting from a living organism, biotic interaction