

Treestyle CONSULTANCY

Tree Condition Report with a Recommended Works Schedule

Date of Assessment

30th June 2021

Sites

Fletcher Moss

Millgate Lane
Didsbury
Manchester

Instructed by

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Executive Summary

Treestyle Consultancy was commissioned to complete a second tree condition appraisal of trees opposite The Alpine Tea Room at Fletcher Moss in June 2021. This is Treestyle Consultancy's second tree condition and recommendations report which assessed three limes and a tree of heaven which are potentially damaging a brick wall lining Millgate Lane. The highlighted trees were assessed at a level two arboricultural survey that involved a full VTA (Visual Tree Assessment) from the ground. This tree was recorded and mapped in accordance with BS 5837 (2012) Trees in relation to design, demolition and construction - Recommendations.

The trees in question are located within the grounds of Fletcher Moss and its tea room, they which provide screening and privacy both for visitors and local residential properties. Additionally they create wonderful qualities for recreational activities and are an integral feature of the landscape.

The trees are in close proximity to the wall and have created two issues, firstly the wall was failing and is currently being repaired, secondly entire tree failure is possible. Both problems are a result of below ground constraints. The boundary wall which overhangs the public footpath and Millgate Lane has the potential to collapse. Generally speaking these areas can be considered as low occupancy targets. However, entire tree failure, because of the below ground constraints, cannot be ruled out. If this occurs it is of greater concern because of the considerably higher occupancy rates caused by the proximity of the Tea Room and residential housing on the opposite side of Millgate.

N.B. Target areas are places where a tree or tree part could fall and land on a building, structure or a person causing damage or injury. This report makes recommendations, however, it is the responsibility of the landowner to make the management decisions concerning the tree.

The contrast between the topography of Millgate Lane and Fletcher Moss is approximately 1.5m of which the wall in question divides these two areas. The three lime have an approximate height of 25m, however, whilst they have no canopy constraints, their girth greatly restricts their longevity. Their below ground constraints due to their proximity to the wall is preventing their natural lateral spread. Trees with a DBH of 400mm has a minimal rooting distance from the trunk of 4.8m with 72m² rooting mass. Lime, generally as a species has a heart root morphology with a typical root depth of 1.3m (Tree Roots in the Built Environment), the fact that there are no roots east of their RPA's would greatly increase the wind throw potential in strong winds due to its reduced mechanical stability.

The second issue with the trees longevity is its below ground constraints which can be seen with the failure of the wall which is undoubtedly due to the trees restricted rooting potential. In addition the trunks of the trees are restricted from their natural expansion, which again is only currently a fraction of its potential size. This is the trees greatest restricting life potential.

The height of the tree and its dominance on the landscape may have contributed to the cracking of the wall. In strong winds the tree will dissipate this energy down from its crown to its stem and ultimately into the rooting area which will have increased movement due to the prevention of its spreading roots. The walls reconstruction raises several issues due to its height, already restricted footpath and the minimal room for buttress expansion. The wall height has been reduced since the last inspection which has reduce its potential to fail. However, this does not address the trees natural expansion. Crown reduction would prevent the tree from moving in strong winds, however, again this fails to address tree expansion.

It is therefore recommended that the trees are removed and the wall repaired. It is imperative that these trees are replaced with a species which will not out grow their location and will provide many years of valuable visual aesthetics.

Generally the lime trees located along the boundary wall are of good quality, however, their below ground constraint greatly reduce their life potential. This species of tree would normally be categorised as **high (category A) quality and value** due to their size, species type and potential lifespan of 40 years plus. Unfortunately, due to their restricted environment they have limited life potential as such are highlighted for removal.

All trees have been categorised and mapped in **Appendix B - Tree Numbering and Categorisation** with their recommendations for removal within 6 months. This work has been documented and categorised in accordance with BS 5837 (2012) - Trees in relation to design, demolition and construction - Recommendations.

These timescales are guidelines to help management ascertain the importance, the urgency and to prioritise the work as stated in **Appendix B - Tree Schedule**. Only three trees were suggested for assessment, however, there are other influencing vegetation within proximity to the wall which was recorded with their time scales, identification, observations and recommendations can be found in **Appendix B - Tree Schedule**.

It is important that the caveats and limitations are understood, they can be read in section 4.0 of this report.

Type / Frequency	Immediate	28 Days	6 Months	Planned	Not applicable
Individual Trees	-	-	T1, T2, T3	-	T4, G5, G6

1.0 Introductions

- 1.1 Treestyle Consultancy's principle assessor is Andrew McLoughlin, the Managing Director of Treestyle Consultancy since 2001. I have a National Certificate in Arboriculture and a Higher National Diploma in Arboriculture. Qualified Arboriculturalist since 1998. I am also a qualified teacher and a LANTRA instructor and assessor. ISA Tree Risk Assessment Qualification, Quantified Tree Risk Assessor. Ancient and Veteran Tree Expert. Up to date Curriculum Vitae (which include records of up to date Continued Professional Development - CPD) can be provided upon request.
- 1.2 The task of an Arboricultural Consultant is to consider all aspects of tree safety with regards to a trees biological and mechanical issues, however, it should be noted that no tree can be deemed as risk free. The ever changing natural environment and the effects of global warming all put trees under stress. Unpredictable forces such as extreme weather, the tidal wave of non native pathogens and mans influence with constant development around trees can all greatly reduce a trees longevity. Other essential areas for consideration are trees potential longevity, their amenity, landscape, ecological and conservational value, social and recreation contributions. The aim of the Arboricultural Consultant is to produce recommendations with the aim to retain green infrastructure where possible. However, recommendations are put forward to reduce the level of work as low as reasonably practical, given the owners acceptance of the level of risk and the perception of its value to the environment.

2.0 The Report

2.1 Survey Brief

A request for a survey and written report was received following an email from Sam Whittle from Helmrig Ltd. A previous assessment and report writing with T1 helped the decision making process and the levels of assessment to quantify the required tree works within the grounds. Health and safety was deemed paramount, in addition upholding the grounds visual amenity value and ensuring a continuous green infrastructure for the future. A suitable management plan with recommendations would be made in accordance with current Arboricultural best practice and tree health care techniques. Ultimately this report will inform/update the landowner who can then make the management decisions best suited to his/her requirements. All trees highlighted for inspection have been mapped and where possible trees were grouped. All trees and tree groups requiring attention have been listed in [Appendix B – Tree Schedule](#). [Appendix A - Tree Numbering and Categorisation](#) highlights these trees. Their relevant recommendations can be read in the latter part of this report. It should be noted that Treestyle Consultancy has no association with any company/organisation who could be involved in carrying out any tree work that is recommended in this report.

The International Society of Arboriculture (ISA) Best Management Practice (BMP) 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. This is because a percentage of the tree population is located on third party land where access could not be gained. These areas were inspected at a Level 1 “limited visuals”. This is deemed ample for their 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.

Objectives and scope of the report are:

- Assess the condition of the trees and categorise them in accordance with British Standards BS 5837, Trees in relation to design, demolition and construction – Recommendation 2012.
- Present an understanding of a trees requirements and to recommend best practice systems that may allow trees, people and wildlife within the grounds to coexist for longterm benefit.

2.2 Background

This is Treestyle Consultancy's second tree survey with T1 lime within the grounds of Fletcher Moss where additional trees have been highlighted for inspection. This type of tree survey is normally recommended to be carried out every 15 months by a suitably experienced and qualified Tree Consultant. This allows the assessor to observe the trees in all four seasons. However, the trees removal obviously supersedes this reassessment.

2.3 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

3.0 Tree Preservation Order and Conservation Area Protection

- 3.1 Town & Country Planning Act (TCPA) Tree Preservation, England, Regulations 2012 and the TCPA 1990 (as amended) provide legislative protection for trees within England. Any tree work normally requires permission from the local authority which can be sort by going through government website planning portal.

<https://www.planningportal.co.uk>

4.0 Caveats and Limitations

- 4.1 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.
- 4.2 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.
- 4.3 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.

- 4.4 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.
- 4.5 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.
- 4.6 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 re-inspected by a qualified arboricultural consultant within three years of this report being written.

5.0 Site Details

5.1 Weather Conditions at time of survey

The weather at the time of the survey was sunny with a moderate westerly wind. The conditions were still sufficient to allow for the level of survey required.

5.2 Site Location

Fletcher Moss is a local area for recreation with a botanical garden and tea room to the west. Set on the edge of a busy residential area with housing to the east and divided by Millgate Lane which has resulted in an area with high occupancy target.

5.3 Topography

The topography of the grounds is relevant due to the location of the tree in question being on a slightly higher profile than that of Millgate Lane. This discrepancy is approximately 1.5m from the footpath to the soil profile of the tree.

5.4 Underlying Soils

The soils parent material within the grounds is glaciofluvial deposits. The soil texture is sand to sandy loam with a deep soil depth.

Ref; British Geological Survey materials NERC(2015)

Assessment of Ecology and its Potential Constraints

- 5.5 Within the grounds are trees that are home to varied species of wildlife as well as birds, mammals and bats which benefit from the presence of these trees. This is primarily because after they were reduced, decaying fungi allow hollowing of the trunks which in turn allow wildlife to thrive. These issues could impose significant constraints of the use, management and development of these trees, as well as the timing for trees works.

6.0 Biological or Mechanical Issues

- 6.1 The trees greatest mechanical issue can be seen with its below ground constraints resulting in the trees having virtually no tree roots east of the stem. This combined with the height of the tree may have contributed to the movement of its root plate resulting in a crack in the wall, especially in light of the trees height and exposure to the elements.

7.0 Species Composition

- 7.1 Lime (*Tilia cordata*) species generally have good longevity characteristics and can be found throughout the local area. They provide great visual aesthetics and contribute to the local ecology.

8.0 General Overview and Discussion

- 8.1 Whilst these trees are an integral feature of the landscape they provide good visual amenity value and screening for local residents, they do have limited longevity and present health and safety issues due to their mechanical instability. T1 has caused visible damage to the wall, whereas T2 and T3 have caused damage to a lesser extent, the fact remains that they pose a risk for the future, especially due to the sudden exposure of T2 and T3 when T1 is removed further increasing their wind throw potential.
- 8.2 Extreme weather has the potential to cause considerable wind loading to their canopies which is absorbed by its stem with the remaining energy transferred to the trees root system which would have originally contributed to the cracking of the wall. The movement of the trees rooting mass is greatly exaggerated due to the missing lateral root spread on the easterly side because of the wall. This instability allows the root system to move and ultimately cause entire tree failure in the direction of the tea room.

- 8.3 All aspects of remedial tree work, or wall repair as solution, have been exhausted with no practical options available where tree and wall can coexist with any real longevity. Therefore it is recommended that the trees are removed allowing for the wall to be repaired and then the tree replacement will see species planted that will not outgrow their location and provide great visual aesthetics for generations to come. It is recommended that their removal be carried out within 6 months of this document being written.
- 8.4 It is imperative tree planting is carried out as soon as possible so as to ensure a continuous green infrastructure for future generations to come. The removal of the trees will have an impact on the visual aesthetics, however, there is currently low level screening in the form of G6. Advice on tree planting can be sort from Treestyle Consultancy, additionally, links to the current guidance can be found in the latter part of this document.
- 8.5 Both individual and groups of trees have been highlighted in [Appendix B - Tree Schedule](#). Generally speaking the chances of either a tree or tree part failing are considered to be low by the next inspection, however, the consequences would be significant should failure occur.

Responsibilities

TREE RISK MANAGER (tree owner, property manager or controlling authority)	TREE RISK ASSESSOR (as defined in scope of works)	TREE WORKER (as defined in scope of works)
Consider the duty of care Define and communicate tree risk management policies Determine the need to inspect the trees in question Identify the geographical limits of the tree inspection Explain target zone use Specify the desired level of assessment Establish the budget Decide the level of acceptable risk Establish the inspection frequency Determine the scope of the work Prioritise work Choose among risk mitigation options Provide required information to the risk assessor	Identify tree and site conditions to inspect Evaluate and classify the likelihood of a tree failure impacting a risk target Estimate the potential consequences of a tree failure Record and explain finding to the client Determine and recommend advanced assessments, if needed Determine tree risk Provide option for treatment to mitigate risk Estimate residual risks after treatment Recommend inspection frequency Develop a report Provide specification for selected treatments	Provide requested services; • Tree work safety review • Pruning • Removal • Support systems • Lightning protection • Tree health treatments • Transplanting • Tree replacement Identify the need for follow up treatments

A Summarised 10 year Management Plan for Newly Planted Trees

10 years	3-5 years	1 year	6 months
Review tree planting strategy	Remove and replace dead or dying trees Formative pruning Remove or lower tree ties	Check tightness of tie straps	Replace tree wood chippings Water trees in the dry periods of the summer months

Useful web links

Tree Planting Manual <https://www.forestresearch.gov.uk/tools-and-resources/urban-tree-manual/>

Tree Species Selection Guide http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_treespeciesguidev1.3.pdf

Tree Species Selection Guide to Informed Decision Making <https://www.barchampro.co.uk/wp-content/uploads/2019/05/Species-Selection-FINAL.pdf>

Grey squirrels <https://www.woodlandtrust.org.uk/mediafile/100263520/ps-wt-2014-grey-squirrel-management-ps.pdf?cb=3819311e674241c0924fedcb48a432f9>

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

Trees and the Law <https://www.trees.org.uk/Trees.org.uk/media/Trees-org.uk/Documents/GuideToTreesAndTheLaw-Web.pdf>

Funding for Tree Planting

<https://www.woodlandtrust.org.uk/plant-trees/schools-and-communities/>

<https://treecouncil.org.uk/take-action/grants-for-trees/>