



Thompson
CONSULTANCY

Arboricultural Report: Tree Condition

Client: Whitehurst, Rebecca
Site: 23 Spring Hill Terrace
Leeds
Postcode: LS6 4EY
Date: October 2023
Prepared by: Mike Kiss BSc (Hons), Dip Arb L6 (ABC), Tech Cert (ArborA), MArborA
Checked by: David Robinson FdSc (Arb), Tech Cert (ArborA), MArborA

TABLE OF CONTENTS

1. INTRODUCTION	Page 3
2. DESK STUDY & REGULATORY FRAMEWORK	Page 5
3. OBSERVATIONS	Page 7
4. CONCLUSIONS	Page 12
5. RECOMMENDATIONS	Page 14
6. DISCLAIMER	Page 15
7. QUALIFICATIONS	Page 15
8. SURVEY METHODOLOGY	Page 16
9. REPORT LIMITATIONS	Page 17
10. REFERENCES & BIBLIOGRAPHY	Page 18
11. GLOSSARY OF TERMS	Page 19

1. INTRODUCTION

1.1 Terms of Instruction

Thompson Tree Services (UK) Limited have been instructed by Rebecca Whitehurst to carry out a tree condition inspection of two trees at 23 Spring Hill Terrace, Leeds, and to produce a report.

The principal objectives are to:

- a) Schedule the relevant trees to include basic data, tree dimensions and locations
- b) Provide an appraisal of the physiological and structural condition of the trees
- c) Assess potential tree related nuisances
- d) Provide prioritised management recommendations

1.2 The Author

The author of this report is Mike Kiss BSc (Hons), Dip Arb L6 (ABC), Tech Cert (ArborA), MArborA.

I am an arboricultural consultant at Thompson Tree Services (UK) Limited. I have seventeen years' experience in arboriculture, twelve of which have been in an advisory role, both as an arboricultural consultant in the private sector and as a Local Authority Tree Officer. I hold the Level Six Diploma in Arboriculture and Professional Tree Inspection qualifications. I am a professional member of the Arboricultural Association and uphold their professional ethical standards within their code of conduct.

1.3 Information Provided

I understand that the instruction for a arboricultural report has arisen from the request of the Local Authority Tree Officer due to the temporary storage of spoil at the base of the trees during construction works to the formal rear garden of 23 Spring Hill Terrace.

1.4 Site Location

Spring Hill Terrace is situated within the Meanwood suburb of Leeds as illustrated below (figures 1 & 2). A brief site description is provided in Observations (section 3).

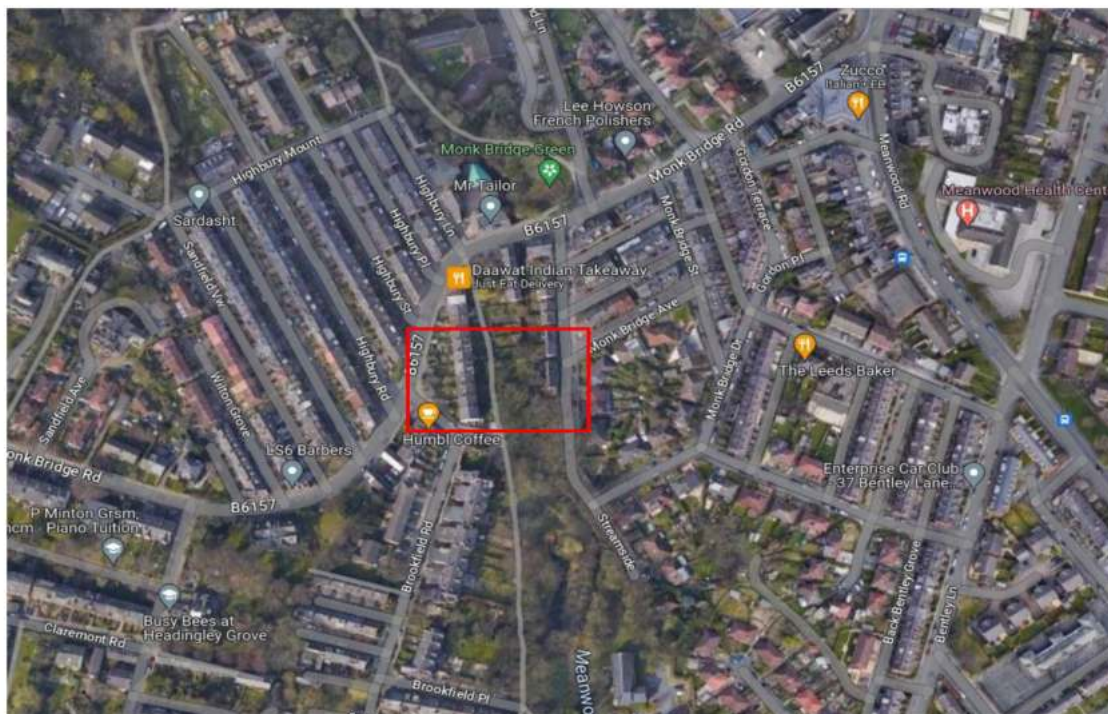


Figure 1: Aerial photograph of the site. Image courtesy of Google.



Figure 2: Approximate Tree Location. Image courtesy of Google.

2. DESK STUDY & REGULATORY FRAMEWORK

2.1 Duty of Care

A legal duty of care is owed through both statute and common law in regard to risk to a target from structural tree failure. The principal statutory legislation is under the Occupiers Liability Act (1957), the Health and Safety at Work Act (1974) and the Highways Act (1980).

The duty is owed by the person who has control over a tree's management, this may be the owner, licensee or occupier of land on which the tree stands (the 'duty holder'). "It is the duty holder's fundamental responsibility as a reasonable and prudent landowner, to consider the risks posed by their trees." (NTSG 2011).

2.2 Tree Preservation Orders and Conservation Areas

Trees may be offered statutory protection under the Town and Country Planning Act (1990) (as amended) and Town and Country (Tree Preservation) (England) Regulations (2012).

According to the interactive mapping system provided by Leeds City Council ¹ it appears that the trees are subject to a statutory protection as they are covered by a Tree Preservation Order (TPO1992_014 T2 & T3). As such an application must be submitted to the Local Planning Authority (LPA) for approval prior to any works taking place. The site is not located within a Conservation Area (CA). It should be noted that this service is not intended to be definitive and so the LPA should be contacted to confirm this status.

2.3 Wildlife Legislation

Statutory protection of flora and fauna in England and Wales is provided by the Wildlife and Countryside Act (1981), the Countryside and Rights of Way Act (2000) and the Conservation of Species and Habitat Regulations (2017) (as amended).

A wildlife and biosecurity assessment should be carried out and findings used to inform how and when any works are to be carried out. The responsibility for this lies with the tree work contractor and should be included on their pre-work site assessment.

¹ [TPO and Conservation Area Information \(arcgis.com\)](https://www.leeds.gov.uk/arcgis.com) (accessed 27.09.23)

2.4 Geology & Soils

According to the British Geological Survey maps ² (1/50K) the site appears to be on a bedrock of 'Pennine Lower Coal Measures Formation - Mudstone, siltstone and sandstone' with superficial deposits of 'Alluvium - Clay, silt, sand and gravel' adjacent the brook.

According to the UK Soil Observatory ³ 'MySoil' layer (1/50K) the soil parent material is 'Mudstone and Sandstone' with 'Riverine Clay and Floodplain Sands & Gravels' adjacent the brook. The soil texture is 'Clayey Loam to Sandy Loam' with 'Clay to Sandy Loam' adjacent the brook.

2.5 Public Rights of Way

According to Ordnance Survey maps ⁴ there is a Public Rights of Way (Public Footpath) between the garden immediately to the rear of 23 Spring Hill Terrace and the treed area adjacent Meanwood Beck.

² [Geology of Britain viewer - British Geological Survey \(bgs.ac.uk\)](https://www.bgs.ac.uk)

³ [UK Soil Observatory](https://www.uksoil.gov.uk)

⁴ [Official Ordnance Survey Shop | GB Maps & Outdoor Gear](https://www.ordnancesurvey.co.uk)

3. OBSERVATIONS

3.1 Site Visits

I made an unaccompanied visit of Spring Hill Terrace on 28th September 2023. I met with Rebecca Whitehurst, and we had a brief, informal chat prior to my inspection of the trees. The weather was fine and dry, with good visibility. The deciduous trees were just starting the annual process of leaf abscission.

3.2 Tree Survey & Inspections

I undertook my tree survey and inspections using the Visual Tree Assessment method (Mattheck & Breloer 2006) stage one and preliminary stage two in a stepwise manner.

Further information on tree assessment is provided in 'Methodology' (section 8) and limitations associated with my inspection and the contents of this report are detailed in 'Report Limitations' (section 9).

3.3 Site Appraisal & General Arboricultural Observations

Springhill Terrace lies immediately to the east of Monk Bridge Road (B6157), within the Meanwood suburb of Leeds. There is a public footpath between the formal rear gardens of Springwood Terrace and a heavily treed strip of land which extends to Meanwood Beck, which forms the eastern boundary of the site.

A Tree Preservation Order covers seven trees within this strip of land, of the following species: sycamore, alder, ash. In addition to the mature trees which are covered by the TPO, there are younger trees present throughout.

The trees subject to this inspection lie within this strip of land. Note that Sycamore (T1) is outside the curtilage of the site and only cursory observations were made.



T1 Sycamore



T2 Alder & T3 Ash



Formal Rear Garden #23

3.4 T1 - Sycamore (*Acer platanoides*)

T1 is a mature sycamore located within the treed strip of land between Springhill Terrace and Meanwood Beck and appears to be within the curtilage of 25 Springhill Terrace. Inspection of this tree is outside the scope of this report, and it is included only for the purposes of retaining consistency between the tree numbers used in this report and those cited on the Tree Preservation Order.

3.5 T2 - Alder (*Alnus glutinosa*)

Basic Observations

T2 is a mature common alder located within the rear garden of 23 Springhill Terrace. It is approximately 17m in height, with an average crown spread radius of approximately 4m. It is a twin-stemmed tree, and stem diameter at 1.5m is measured at 510mm and 290mm.

Root System

The public footpath to the west of the tree is within 3m of the base of the main stem and is hard surfaced. There is a gas service hatch within the pavement, indicative of the presence of underground services.

An area of ground approximately 2m to the south of the tree is visibly discoloured (approximately 3m x 3m). I understand that this area used for the temporary storage of spoil excavated from the formal rear garden of 23 Springhill Terrace. I understand that the spoil was removed by hand and taken to a skip located on Brookfield Road. The resulting levels appear broadly similar to those of adjacent gardens and surrounding ground. The lighter colouration of this area appears to be due to visible clays and the absence of surface organic matter (leaves, deadwood, humus).

Alder T2 has a visible taper to the base of the main stem and the buttresses are visible.



Main Stem & Branch Structure

Twin stemmed tree with tight fork between stems.

The eastern stem has an open cavity from ground level to approximately 1.5m, with visible hollowing to a depth of approximately 300mm. An adventitious root is present at the base of this stem, immediately below a slightly sunken strip between the buttresses. Probing into the ground at this location was met with little resistance, indicative of decay of roots on this side.

Sounding with a nylon mallet indicates extensive decay of the buttress to the north, the sunken strip to the east and of the eastern stem to a height of at least 2m.

The eastern stem has a moderate lean to the southeast, with a small, high crown, and is partially suppressed by the adjacent sycamore and ash. The first branch is at approximately 9m. Wounds below this are indicative of historic branch failure or pruning and are partially occluded with some visible decay. An opening at 5m to the north-northeast has smoothed edges and may be used by birds or mammals.

The western stem is subdominant and has a moderate lean to the west. Sounding of the western stem doesn't indicate audible decay, and the branch architecture of this stem suggests a younger life stage.



Leaves, Buds and Extension Growth

The dominant, eastern stem holds the majority of its leaf bearing twiggy growth high up at the distal ends of its branches, forming a small and high crown.

Throughout the crown, the foliage is moderately affected by pest damage. Some of the leaves show skeletal remains symptomatic of alder leaf beetle (*Agelastica alni*), and larger areas of damage symptomatic of alder sawfly (*Eriocampa ovata*). This pattern of damage is also present on other alder trees in the vicinity.

There is minor deadwood throughout the crown.



3.5 T3 - Ash (*Fraxinus excelsior*)

Basic Observations

T3 is a mature common ash located within the rear garden of 23 Springhill Terrace. It is approximately 18m in height, with an average crown spread radius of approximately 5m. The stem diameter at 1.5m is measured at 450mm.

Root System

Several small areas of shallow excavations were present at the time of inspection. I understand these were related to recent metal detecting activities and undertaken with care by hand tools.

On initial inspection, the taper at the base of the main stem was barely visible above the current ground level. However, careful removal of a small amount of soil revealed a taper just below the current level.



Main Stem & Branch Structure

There is minor historic damage to west of main stem at ground level to a height of approximately 250mm. This appears to be superficial and is occluding well. Sounding with a nylon mallet doesn't indicate any audible decay of the lower main stem.

The main stem bifurcates at 3.5m. There is a historic wound on the western stem at approximately 5m to 7m. The lower 600mm of this wound is nearly fully occluded.

Both stems have a slight lean, and asymmetric crown biased to the southeast.

Leaves, Buds and Extension Growth

The tree is currently exhibiting symptoms consistent with very minor ash dieback: occasional undersized leaves and dieback of individual branches. Note that full assessment of ash dieback is somewhat compromised due to the height of the crown and the onset of autumn.

There is minor and major deadwood throughout the crown.



4. CONCLUSIONS

4.1 General Conclusion

In my opinion, the tree population of the area between Spring Hill Terrace and Meanwood Beck provides considerable environmental, ecological and sociological benefits, as well as significant arboricultural amenity value. The protection of several individual mature trees by Tree Preservation Orders is indicative of their contribution to local amenity.

4.2 T2 Alder

In my assessment, alder (T2) is currently in fair physiological condition and fair to poor structural condition.

There is extensive decay of the lower part of the dominant eastern stem and northern buttress. However, the crown of this stem is small relative to the stem diameter, and well sheltered. There appears to be low to negligible target values (occupation) within the area likely impacted in the event of failure. Although the pest damage to the foliage detracts a little from the aesthetics of the tree, it is unlikely to greatly stress the tree at current levels. However, repeated attack and loss of photosynthetic area may contribute to the future decline of the tree.

4.3 T3 Ash

In my assessment, ash (T3) is currently in fair physiological condition and fair structural condition.

Any infection by ash dieback currently appears to be very minor and / or the tree is tolerant of the disease. However, I recommend that regular informal checks are made due to the potential for rapid decline in condition. Symptoms of ash dieback include leaf wilt, leaf loss, crown dieback and bark lesions. Epicormic shoots are often formed as a stress response on affected trees and result in a bushy appearance in the crown. Of key importance regarding structural tree condition is the associated embrittlement of the wood, potential for multiple entry points and the reduction in tree vitality which promotes conditions for secondary infection by pathogens such as honey fungus (*Armillaria mellea*) and wood decay fungi such as giant ash bracket (*Perenniporia fraxinea*) or shaggy bracket (*Inonotus hispidus*).

4.4 Effect of Disturbance within the Rooting Area

Potential issues with storage of materials or spoil within the rooting areas of trees includes root damage, soil disturbance, contamination and / or compaction of soil which may affect soil structure, infiltration, gaseous exchange, microbial and mycorrhizal activity.

Due to the likely history of ground disturbance within the area between Spring Hill Terrace and Meanwood Beck, it is difficult to establish a timeline for disturbance and deposition of materials. However, in my assessment, the temporary storage of spoil adjacent alder (T2) will likely have negligible impact on the health and longevity of the tree. I understand the spoil was careful removed by hand, and current ground levels appear broadly similar to those of adjacent gardens and surrounding ground. Due to the highly treed nature of the area and presence of deadwood within the crowns of the trees, organic matter is likely to be readily replaced and the O-horizon restored with minimal overall impact.

The presence of a hard surfaced footpath and services within a few metres of several of the TPO'd trees is likely to have resulted in historic disturbance of their root systems. All future ground works in proximity to trees should be undertaken in accordance with best practice detailed in British Standard 5837:2012 and National Joint Utility Group (2007). Any necessary excavations within the critical rooting area (or RPA) of retained trees should be carefully undertaken with use of hand-held tools only and preferably by compressed air soil displacement (such as Airspade).

4.5 Management Options

In my opinion, no tree work is currently required. The crown architecture of alder (T1) is not conducive to pruning to reduce the sail area, and any removal of leaf bearing material would likely be detrimental to its longevity. It is possible that if the eastern stem were to fail, it would produce regrowth from the point of failure and the tree would live on, initially supported by the western stem.

It may be beneficial to seek to improve conditions within the rooting area of the trees. This should involve removal of the small amount of residual clay spoil and application of woodchip mulch over the rooting area. This would help produce favourable conditions within the rooting zone through increasing soil moisture, increasing earthworm activity, increasing aeration, increasing soil organisms, and increasing recycling of material.

5. RECOMMENDATIONS

5.1 High Priority Management Recommendations

My tree survey and inspection did not identify the need for any emergency, high priority or medium priority works.

5.2 Low Priority Management Recommendations

The following management recommendations are made with a low priority and are made in the interest of good arboricultural management, as and when resources allow:

- Removal of the small amount of residual clay spoil
- Application of woodchip mulch over the rooting area of alder (T2) & ash (T3) ¹
- Regular formal inspection & informal checks for change in condition ²

¹ Partially decomposed broadleaved woodchip mulch to a depth of 40mm to 60mm

² I recommend that all trees are formally reinspected within three years of the date of this report. In addition, I recommend that regular informal checks are made for obvious changes in condition or presence of annual fungal fruiting bodies. Checks should also be carried out after high wind events. If any defects are noted or there is a significant change in condition from the benchmark set out in this report, then a suitably qualified arboriculturist should be consulted.

5.3 General Recommendations

All tree work should be carried out in accordance with British Standard 3998:2010 'Tree Work – Recommendations.'

It is strongly recommended that an Arboricultural Association Approved Contractor is used to carry out any tree work. A list of these is available from the Arboricultural Association ⁵.

⁵ [Arboricultural Association - Home \(trees.org.uk\)](https://www.trees.org.uk)

6. DISCLAIMER

Reports remain the copyright of Thompson Tree Services (UK) Ltd and any transfer to a third party must be with our express consent.



2nd October 2023

Mike Kiss

DATE

7. QUALIFICATIONS & EXPERIENCE

7.1 Qualifications

- 2021 Level 6 Diploma in Arboriculture (ABC)
- 2018 Quantified Tree Risk Assessment: Registered User (QTRA)
- 2010 Professional Tree Inspection (Lantra)
- 2009 Technicians Certificate in Arboriculture (Arboricultural Association)
- 2001 BSc (Hons) Geography (The University of Sheffield)

7.2 Experience

- 2017 - Thompson Tree Services (UK) Ltd (AA Approved Contractor)
Supervisor / climbing arborist / arboricultural consultant
- 2013 - 2017 Gristwood & Toms Ltd (AA Approved Contractor)
Team leader / climbing arborist / tree surveyor
- 2011 - 2013 Bristol City Council (BCC)
Arboricultural Officer (Parks)
- 2008 - 2011 Midland Forestry Ltd (AA Approved Contractor)
Team leader / climbing arborist / tree surveyor

7.3 Memberships

- 2022 - Arboricultural Association: Professional Member (MArborA) (PR7385)
- 2019 - 2021 Arboricultural Association: Technician Member (TechArborA)

8. METHODOLOGY

8.1 Visual Tree Assessment

The tree inspection was carried out in accordance with the Visual Tree Assessment (VTA) method (Mattheck & Breloer 2006), which provides a systematic framework for formal tree inspection, as summarised:

- i. VTA Stage 1 - Visual inspection for defect symptoms and vitality
- ii. VTA Stage 2 - Confirmation of presence or absence of defect(s)
- iii. VTA Stage 3 - Measurement & assessment of defect(s) and residual strength

This inspection was initially undertaken from ground level and in accordance with stage one VTA, involving the use of non-invasive methods to identify tree health issues and structural defects by visual observation. Where appropriate, use of a nylon sounding mallet and a probe has been made (preliminary stage two VTA).

Should a more detailed inspection be required then this will be highlighted in the recommendations. This may involve the use of decay detection tools or aerial inspection (advanced stage two VTA) and interpretation of findings to form a prognosis (stage three VTA).

8.2 Data Collection

The following information was collected for each tree:

- Tree / Group ID: sequential reference number
- Species: common & botanical
- Dimensions: height, average crown spread radius & stem diameter
- Comments: potentially significant features & defects
- Physiological & Structural Condition: good / fair / poor
- Management Recommendations: prioritised

Dimensions have been estimated unless a greater level of accuracy is deemed necessary. Stem diameter has been measured at a height of 1.5m.

Photographs are presented in the Tree Schedule (appendix 1) / Observations (section 3) as documented evidence of the trees condition at the time of the survey.

Additional photographs may be kept on record at the discretion of Thompson Tree Services.

9. REPORT LIMITATIONS

9.1 Limitations: Generic

The information, opinions and recommendations contained within this report are based on my site observations and information provided, interpreted in the context of my arboricultural knowledge & experience (section 8).

The trees have been assessed within their current context and surrounding land use. Subsequent changes to either the surrounding built environment or local tree population are likely to modify wind flow patterns and may affect likelihood of failure. Change of land use may affect target values.

This report details the trees condition as observed on the day of the survey. Trees are living organic structures whose condition can change rapidly. Due to the ephemeral nature of annual fungal fruiting bodies, absence of these does not necessarily mean that parent fungi are not present. Due to the unpredictable laws and forces of nature, and a natural failure rate of intact trees, no tree should ever be considered absolutely safe from failure.

Thompson Tree Services (Midlands Ltd) is insured to the sum of £1,000,000 Professional Indemnity for suitably qualified personnel to carry out tree inspections and reports.

9.2 Limitations: Site Specific

This report has been compiled with the use of data collected from ground level inspection in accordance with the methodology described (section 10).

A formal tree risk assessment is outside the scope of this report. However, in forming management recommendations, consideration has been made of target value, likelihood of failure and the size of tree or part.

On the day of my site visit, access throughout the curtilage of the property was unlimited. However, due to difficulties associated with confines of the site regarding adjacent properties, nature of ground features, and proximity of adjacent trees I was not able to view all parts of the tree crowns from all angles.

Ash dieback is a relatively recent pathogen to the UK. To date, there has been limited research into the rate of deterioration in structural integrity of infected trees. There remains increased uncertainty in assessing the probability of tree failure, risk of harm, management recommendations and timeframes.

No below ground assessment or excavation has been attempted, nor has any effort been made to assess subsidence risk potential or direct damage caused by roots.

The content of this report is valid for a period of two years from the date of this report, until the reinspection dates set out in Recommendations (section 6), or until any significant alteration to the site or surrounding area that may affect the trees or their targets; whichever is sooner.

10. BIBLIOGRAPHY & REFERENCES

Arboricultural Association: www.trees.org.uk

British Standard 3998:2010 *Tree Work – Recommendations*. BSI

British Standard 8545:2014 *Trees: from nursery to independence in the landscape – Recommendations*. BSI

International Society of Arboriculture (2020) *Glossary of Arboricultural Terms*. ISA, Atlanta

Johnson, O & More, D (2006) *Tree Guide: The Most Comprehensive Field Guide to the Trees of Britain and Europe*. Collins, London

Lonsdale, D (1999) *Principles of Tree Hazard Assessment and Management*. Research for Amenity Trees No. 7. DETR

Mattheck, C (2007) *Updated Field Guide for Visual Tree Assessment*

National Tree Safety Group (2011) *Common Sense Risk Management of Trees*

Mattheck, C & Breloer, H (2006) *The Body Language of Trees: A Handbook for Failure Analysis*. Research for Amenity Trees No. 4. DETR

Slater, D (2016) *Assessment of Tree Forks: Assessment of Junctions for Risk Management*. Arboricultural Association

Watson, G (2013) *Tree Pests and Diseases - An Arborists' Field Guide*. Arboricultural Association

Watson, G & Green, T (2011) *Fungi on Trees - An Arborists' Field Guide*. Arboricultural Association

11. GLOSSARY OF TERMS

Key to Tree Schedule

Age class

- Newly Planted: A tree which is not yet fully established in the landscape
- Young: A young tree which is established in the landscape
- Semi-mature: A tree less than 1/3 life expectancy
- Early Mature: Middle aged tree between 1/3 to 2/3 life expectancy
- Mature: A tree over 1/3 life expectancy
- Veteran: A tree exhibiting features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical life expectancy.

Condition (structural or physiological)

- Good: Containing no apparent significant defects or pathogens
- Fair: Containing defects or pathogens that have potential to have an impact on the function of the tree, or component of the tree
- Poor: Containing defects or pathogens that significantly compromise structural integrity or cause dysfunction to the tree, or component of the tree

Inspection Frequency

- Biannual: Occurring twice a year
- Annual: Occurring once a year
- Biennial: Occurring once every two years

Priority of Work

- Emergency Work: To be carried out within timeframe as identified within report
- High Priority: To be carried out within six months
- Medium Priority: To be carried out with twelve months
- Low Priority: To be carried out in the interests of good arboricultural management as and when resources allow

Arboricultural Operations

- Coppicing: Removal of all aerial parts of the tree leaving a 'coppice stump' for regeneration
- Crown Clean: Selective removal of dead, diseased and broken branches from the tree crown
- Crown Lift: Selective removal of lower branches from a tree crown to provide clearance
- Crown Reduction: Pruning to reduce the height and / or spread of a tree crown
- Crown Thin: Selective removal of live branches to reduce crown density
- Felling: Cutting down a tree, usually to ground level
- Haloing: Removing or pruning trees from around the crown of another (usually mature or post-mature) tree to prevent it becoming suppressed
- Pollarding: Semi-formal pruning system that maintains crown size by initial heading of branches on young trees or young portions of older trees, followed by removal of sprouts to their point of origin at appropriate intervals, without disturbing the resulting pollard heads