

# Acacia Tree Services

## **Arboricultural Report Relating Proposed Development**

**At the rear of**

**108a St Johns Road  
Buxton**

21<sup>st</sup> November 2013

Report By:

Peter Pollard (HND Arb)  
32 St Peters Road  
Buxton  
Derbyshire  
SK17 7DX  
Tel 01298 938615

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## **INTRODUCTION**

### **1.1 Professional Details**

- 1.1.1 My name is Peter Pollard and I have been working within the Arboricultural Industry since 1989. I have 17 years consulting experience as a Local Authority arboriculturalist and also within the private sector.
- 1.1.2 I hold a Higher National Diploma in Arboriculture, achieved at Myerscough College. I regularly attend conferences and seminars in order to keep up to date with latest research and best practices. In March 2011, I passed the *Lantra* Professional Tree Inspectors Course.

### **1.2 Tree Survey**

- 1.2.1 The purpose of this part of the report is to survey all trees situated on or adjacent to the rear of 108a St Johns Road. This report relates the larger, significant trees on site that may be affected by the development proposals. The survey has been carried out in accordance with BS5837:2012 *Trees in Relation to Construction* – Recommendations.
- 1.2.2 The survey on which the findings of this report are based was undertaken on Thursday 21<sup>st</sup> November 2013.
- 1.2.3 This report should be read in conjunction with the attached location plan of APPENDIX TWO.
- 1.2.4 The trees were inspected from ground level only and all comments and recommendations made have taken into account their location, surroundings and likely impact on persons or property.
- 1.2.5 The limitations of this report are restricted to the persons, time, information made available and purpose for which this report has been prepared.

## 2.0 FINDINGS

### 2.1 Trees Surveyed

A total of twenty one individual deciduous trees were surveyed and plotted in order to assess their health and dimensions. To give assistance in reading the findings the following glossary has been produced.

### 2.2 Arboricultural Glossary of Terms

The following terms are concurrent with the best Arboricultural practice within the guidelines set by the International Society of Arboriculture (ISA), the Arboricultural Association (AA) and the British Standards Institute (BSI).

**Dbh:** Diameter at Breast Height is measured at 1.5m and recorded in millimetres (mm). Where the tree becomes multi-stemmed below 1.5m the diameter is measured above the root flare at the base of the tree.

**Height:** Height is measured and recorded in metres (m).

**Age Range:** Age is site specific and categorised:

Young (Y)	Out-planted trees that have not yet established.
Semi-Mature (SM)	Established trees up to 1/3 of expected height.
Early Mature (EM)	Between 1/3 and 2/3 of expected height.
Mature (M)	Between 2/3 and full expected height.
Fully Mature (FM)	Full expected height and crown spread
Over Mature (OM)	Crown beginning to break –up and decrease in size.
Senescent (S)	Crown in advanced stage of break-up

**Crown Spread:** measured in metres (m), measure at the 4 cardinal points (N, E, S, & W)

**Condition:** Assessment of current physiological condition and structural morphology, incorporating vigour and vitality and categorised:

- A - Tree needing little, if any, attention
- B - Tree with minor, but rectifiable defects, or in the early stages of physiological stress.
- C - Tree with significant structural and physiological flaws and/or extremely stressed.
- D - Tree that is dead, biologically/ physically moribund or dangerous

Desirability to Retain – As outlined in Table 1 of BS5837:2012 *Trees in Relation to Construction* – Recommendations

## Definition of Physiological & Morphological Terms

**Adaptive Growth** – The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone.

**Bifurcation** – Forked or divided union.

**Brown Rot** – Form of decay where cellulose is degraded, while lignin is only modified.

**Cankers** – (target or tumorous) – A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by woundwood development on the periphery. This may be annual or perennial.

**Chlorotic Leaf** – Lacking in chlorophyll, typically yellow in colour.

**Compartmentalisation** – The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.

**Crack** – Longitudinal split in stem or branch, involving bark and/or underlying wood. These may be vertically or horizontally orientated.

**Decay** – Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.

**Deadwood** – Deadwood is often present within the crown or on the stems of trees. In some instances it may be an indication of ill-health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc).

**End Weight** – The concentration of foliage at the distal ends of stems and deficient in secondary branches.

**Girdling Root** – Root which circles and constricts the stem or roots, causing death of phloem and/or cambial tissue.

**Hazard Beam** – An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).

**Included Bark Union** – Pattern of development at branch junctions, where bark is turned inward rather than pushed out. Potential weakness, due to lack of a woody union.

**Ivy Growth** – Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland area as a conservation benefit.

**Live Crown Ratio** – The relative proportion of photosynthetic mass (leaf area) to the overall tree height.

**Reaction Wood** – Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.

**Root Plate Lift** – The physical movement of the rooting plate, causing soils to shift and crack. This may occur during adverse weather conditions. Trees may become unstable.

**Structural Defect** – Internal or external points of weakness, which reduce the stability of the tree.

**Suppressed** – Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.

**Topping** – A highly disfiguring practice, likely to cause severe xylem dysfunction and decay in major structural parts of the wood.

**White Rot** – Form of decay where both cellulose and lignin are degraded.

**Wound** – Any injury, which induces a compartmentalisation response.

**Woundwood** – Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term “callus”.

**Woodland Structure** – The vertical and horizontal arrangement of trees within a group or woodland i.e. Dominant – trees with a crown above the upper layer of the canopy, Co-dominant – trees that define the general upper edge of the canopy, Intermediate – trees that have been largely overgrown by others, Suppressed – trees that have been overgrown and occupy an under storey position and grow slowly, often severely asymmetrical.

*Note: The definitions described above, may not necessarily be included within the Arboricultural Survey data.*

2.3 Arboricultural Data Table – Rear of 108a St Johns Road, Buxton 21/11/13  
The tree numbers T6-T20 coincide with those on the existing Tree Preservation Order (TPO) 1998

Tree No	Species	Dbh (mm)	Age	Crown Spread	Comments & Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree quality Category Rating
T1	Ash	130mm	Y	N 1.0 E 1.0 S 1.0 W 1.0	Self-seeded specimen, inappropriate for location.	20+	C1
T2	Willow	400mm	M	N 3.0 E 3.0 S 3.0 W 3.0	Good health, but Poor form as re-sprouted growth from stump	20+	U
T3	Sycamore	400	M	N 2.5 E 2.5 S 2.5 W 2.5	Good health, but Poor form as re-sprouted growth from stump	40+	U
T4	Cherry	70mm	Y	N 1.5 E 1.0 S 1.0 W 0.5	God health, but poor form as supressed by adjacent Ash tree	20+	U
T5	Ash	500mm	M	N 4.0 E 4.5 S 3.0 W 4.0	Good health and reasonable form. Part of the avenue/screen along the south western boundary of the site	20+	B1

T6	Lime	380mm	M	N 1.5 E 3.0 S 1.5 W 2.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T7	Lime	500mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T8	Lime	520mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T9	Lime	610mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T10	Lime	420mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T11	Lime	270mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T12	Lime	300mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1

T13	Lime	340mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T14	Lime	400mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T15	Lime	500mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T16	Lime	480mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T17	Lime	520mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T18	Lime	450mm	M	N 1.5 E 3.0 S 1.5 W 3.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T19	Lime	360mm	M	N 1.5 E 3.0 S 1.5 W 3.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1

T20	Lime	820mm	M	N 2.0 E 5.0 S 2.0 W 4.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1
T21	Lime	320mm	M	N 1.5 E 3.0 S 1.5 W 3.0	Healthy specimen, much epicormic growth, low-hanging branches and minor dead-wood	40+	B1

### **3.0 RECOMMENDATIONS**

#### **3.1 Tree Assessment**

In general the trees were found to fall into two categories, those healthy, mature trees forming the avenue/screen along the south-western boundary of the site and those which are stump re-growth or self seeded.

#### **3.2 Development**

The above data table clearly details the condition of the trees and identifies their worthiness for retention. However, an Arboricultural Implications Assessment and Method Statement will fully assess development impact on each tree, proposed tree works and tree protective measures.

#### **3.3 Standard of Work**

All tree work undertaken should be done in accordance with British Standard 3998: 2010 and by competent contractors insured with public liability cover of at least two million pounds.

#### **3.4 Statutory Controls**

Mature Lime trees T6 – T20 are subject to a Tree Preservation Order (TPO), and permission will be required prior to any pruning work.

#### **3.5 Wildlife**

All operations should take account of wildlife needs and be planned to take advantage of weather conditions and time of year for minimum damage and disturbance. If any protected species or nesting birds are present or discovered while the works are taking place, all work should cease until contact has been made with English Nature for further advice. English Nature can be contacted on 01942 820 342 or by e-mail to: [northwest@english-nature.org.uk](mailto:northwest@english-nature.org.uk). Specific consideration should be given to the possible presence of roosting bats, which are protected by the Wildlife and Countryside Act 1981 (schedule 5) and included in schedule 2 of the Conservation Regulations 1994. Ideally, a survey should be carried out to identify any potential roost sites and if bats are found to be present advice should be sought from a person qualified and experienced in handling such matters and fully conversant with the implications of the Act.

# APPENDIX

## ONE

Table 1 of BS 5837

## Table 1

# APPENDIX

## TWO

### Tree Location Plan

Tree location Plan – Rear of 108a St Johns Road, Buxton

