Tree Survey
For The Arboricultural Report Relating
To The Proposed Development
At
33 Princes Rd
Chinley

Report By:

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1.0 INTRODUCTION

1.1 Professional Details

1.1.1 My name is Andrew Beech and I have been working within the Arboricultural Industry since 1991. I have many years practical and consulting experience as a Local Authority arboriculturalist and also within the private sector.

1.1.2 I hold a Higher National Diploma and Foundation Degree 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.

1.2 Tree Survey

1.2.1 The purpose of this part of the report is to survey all trees situated on the Princes Road site that may be affected by the development proposals. The survey has been carried out in accordance with BS5837:2005 *Trees in Relation to Construction* – Recommendations.

1.2.2 The survey on which the findings of this report are based was undertaken on Tuesday 4th June 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 nine 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) at four cardinal points (N, E, S & W)

Crown Clearance: Measured in metres 9m) from the ground to the first branch tip on the developments side only.

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 BS5837:2005 *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 tumerous) – 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. 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 – Princes Road, Chinley 4th June 2013

Tree No	Species	Dbh (mm)	Age	Crown Spread	Tree Height & Crown Clearance (m)	Condition Rating	Comments & Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree quality Category Rating
T1	Fir	230	EM	N 2.5 E 2.5 S 2.6 W 2.75	Height 11.5 C.C. 0	A	A good example well adapted and with good vigour, will benefit the development	40	A
T2	Willow *Salix Spp*	350	M	N.	Height 11 C.C. 3.5	B	Leaning from base no sign of lift/heave	20-40	B
T3	Maple	260	SM	N 4.0 E 4.5 S 3.7 W 4.2	Height 8 C.C. 1.1	B	Variegated leaf somewhat suppressed by neighbouring Willow	20 - 40	B
T4	Ash *Fraxinus excelsior*	573	M	N 6.0 E 8.9 S 8.0 W 6.5	Height 18 C.C. 7	B	Some dead wood in crown, mainly secondary lower branches, Ivy covered stem will overhang development	20-40	B
T5	Birch *Betula pendula*	604	M	N 5.0 E 3.0 S 3.3 W 3.5	Height 16 C.C. 2.2	A	Good vigour & shape, poorly pruned up to 2.5m, main union obscured by moss, base hidden by garden debris,	20 - 40	A

Tree No	Species	Dbh (mm)	Age	Crown Spread	Tree Height & Crown Clearance (m)	Condition Rating	Comments & Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree quality Category Rating
T6	Conifer	190	EM	1.0 Symmetrical	Height 10 C.C. 0	A	A healthy symmetrical tree	20 - 40	A
T7	Willow *Salix spp*	800	M	N 5 E 2 S 7 W 6	Height 16 C.C. 6.5	B	Recently Heavily Pruned (topped)	20	C2
T8	Birch *Betula pendula*	382	EM	N 2.9 E 1 S 1.9 W 5	Height 8 C.C.4	B	Recently Heavily Pruned (topped & property side)	20	B
T9	Willow *Salix spp*	509	M	N 3.8 E 4 S 2 W 6.2	Height 18 C.C. 6	B	Reduced on property side	20-40	B
T10	Rowan *Sorbus aucuparia*	110	Y	N/a	Height 1 C.C. 1	C	"Topped" @ 1m, allow to re grow to add to wildlife corridor cover	10	C
T11	Monkey Puzzle	100	Y	1.5 Symmetrical	Height 3 C.C. 0.5	A	Well adapted non native tree, symmetrical habit	40	A

Arboricultural Data Table cont'd – Princes Road, Chinley 4th June 2013

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Tree No	Species	Dbh (mm)	Age	Crown Spread	Tree Height & Crown Clearance (m)	Condition Rating	Comments & Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree quality Category Rating
T12	Willow *Salix spp*	509	M	N 3.2 E 2.8 S 1 W 5.7	Height 18 C.C. 5	B/C	Forks @ 0.75m cavity in union	10 - 20	C
T13	Willow	No access Approx 650	M	No access to base	Height 16	No access to base Est. B	Poor pruning wounds < 5m, base obscured by garden waste,	20	B
T14	Hawthorn *Crataegus monogyna*	250	EM	N 3.1 E 2.0 S 2.1 W 2.7	Height 7	A	Suppressed by neighbouring trees and growing towards light i.e. North westerly	20	B
T15	Larch *Larix decidua*	No access Approx 650	FM	Approx. N 9.0 E 8.0 S 7.0 W 7.0	Height 20 C.C. 4.5	No access to base Est. B	Number of dead branches in lower crown, Ivy growth on stem,	T14	B
T16	Conifer	130, 140	SM	N 2 E 2 S 2.2 W 2.2	Height 9 C.C. 0	C	Double stem, some branches becoming too heavy & stressed for their union	20 - 40	C
T17	Malus	110	M	N 1.5 E 1.4 S 2 W 1.75	Height 3.0 C.C. 0.75	B	Ornamental tree with a low growing habit	20	B

Arboricultural Data Table cont'd – Princes Road, Chinley 4th June 2013

Tree No	Species	Dbh (mm)	Age	Crown Spread	Tree Height & Crown Clearance (m)	Condition Rating	Comments & Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree quality Category Rating
T18	Conifer	Est 100	EM	1.75 Symetrical	Height 3.5	A	Dense ornamental conifer	20 - 40	B - A

3.0 RECOMMENDATIONS

3.1 Tree Assessment

In general the trees were found to be in a reasonable condition for their age and species.

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

It is understood that there are no Tree Preservation Orders on this site nor does it fall within the confines of a Conservation Area. *(Ref; Telephone conversation with M. Gillespie 11/06/13).*

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. 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.

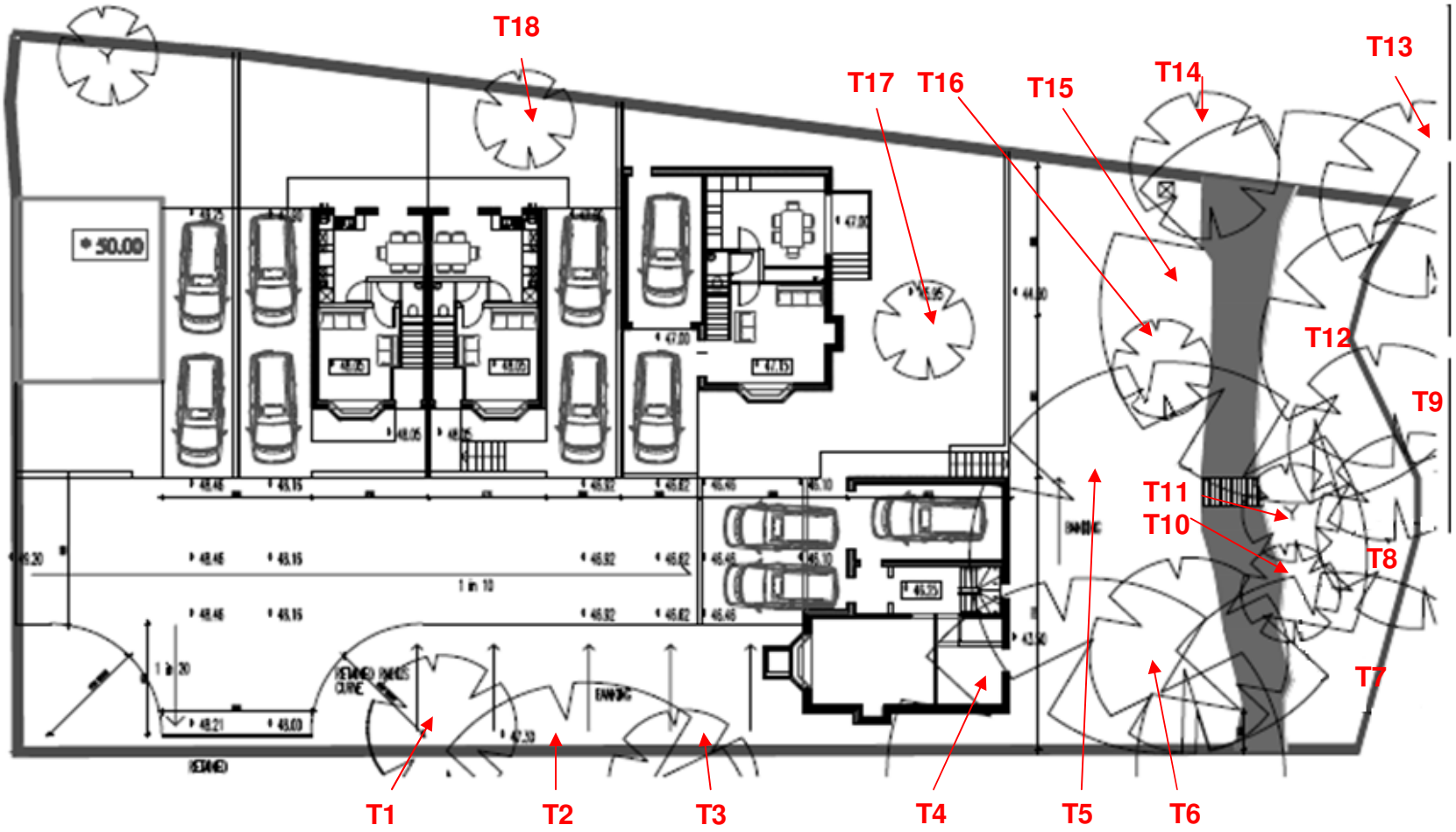
APPENDIX

Two

Location Plan

Of

Retained Trees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