



ARBORICULTURAL REPORT

& Impact Assessment

to BS5837:2012 at:

Land at
61 Haxey Lane,
Haxey,
Doncaster
DN9 2ND

Prepared for:
Mr Paul Jackson
The Limes
Great North Road
Bawtry

Date: *August 2018*

Reference: AWA2189



1. Introduction

1.1 Instructions and Brief

- 1.1.1 We are instructed by Mr Paul Jackson to visit the site and prepare our findings in a report.
- 1.1.2 The report is required in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

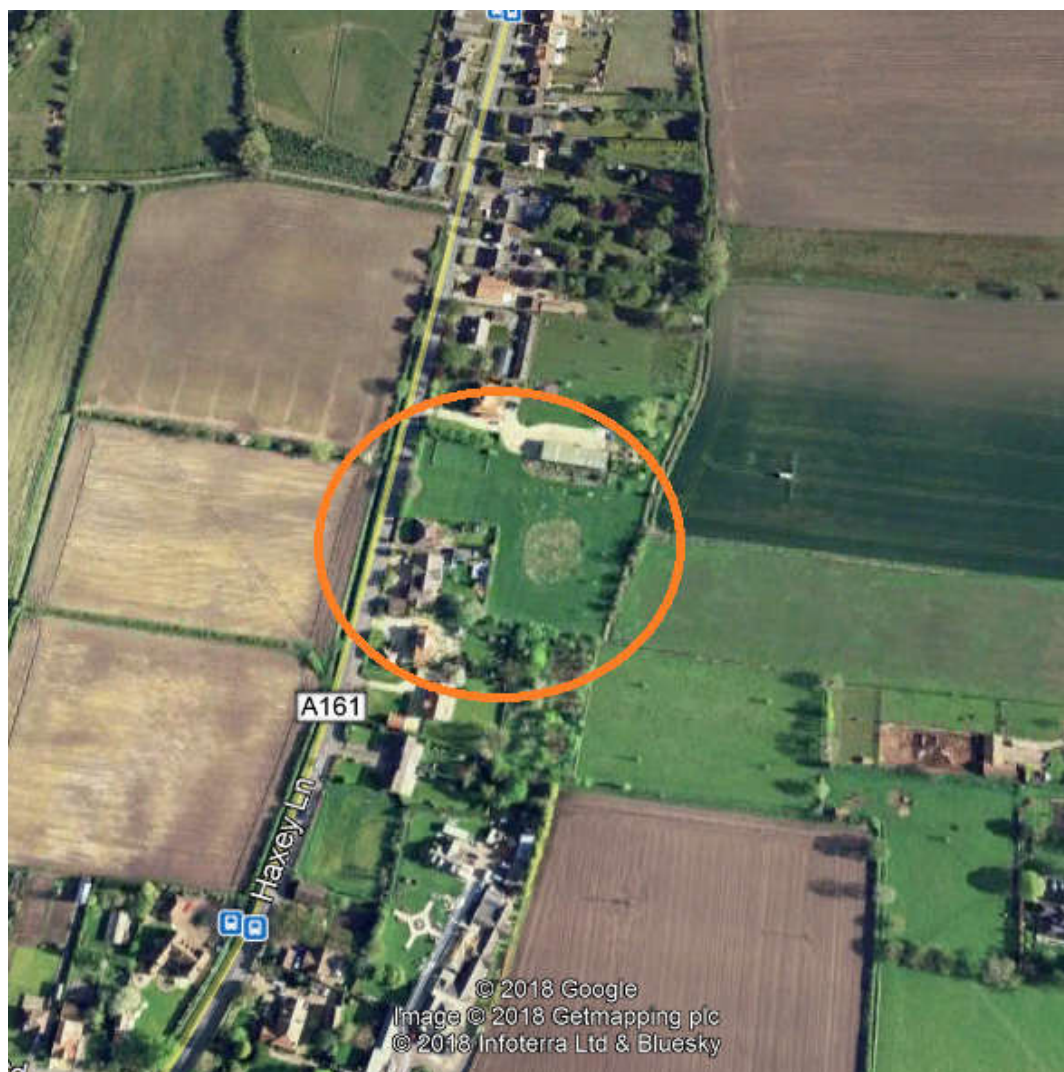
1.2 Survey Details

- 1.2.1 The survey took place during April 2018.
- 1.2.2 The trees were surveyed visually from the ground using “Visual Tree Assessment” techniques and in accordance with the guiding principles of British Standard 5837:2012.
- 1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 1.2.4 We have been provided with a topographical survey with tree positions plotted, where surveyed trees were not included on the topographical survey the tree positions were plotted using enhanced GPS technology (1-2m accuracy) and laser distance measurer.
- 1.2.5 This report has been prepared by Mr Adam Winson Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principle and Director of AWA Tree Consultants Ltd.
- 1.2.6 The tree survey data collection was carried out by Mr D. Farmer FdSc (Arb), MArborA. PTI (Lantra) and Dr F. Stout Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA.
- 1.2.7 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations refer to the Tree Constraints Plan at **Appendix 5**

2. The Site

2.1 Location and Description

- 2.1.1 The site is located in the village of Haxey, a civil parish within North Lincolnshire, 15 miles to the east of Doncaster and 15 miles to the south-west of Scunthorpe.
- 2.1.2 The site currently consists of land adjacent to a residential property (61 Haxey Lane). The driveway and outbuildings of the residential property form the northern boundary of the site. Further residential properties are located to the south, with managed farmland to the east and west.
- 2.1.3 The approximate area of the survey is highlighted in the (2008) image below:



3. The Trees

3.1 Legal

- 3.1.1 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a check should be made with the Local Planning Authority to see if the trees are covered by a Tree Preservation Order or if they are within a Conservation Area (unless such works are approved by planning permission). If either applies, then statutory permission is required before any works can take place.
- 3.1.2 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance. All tree work should be carried out according to British Standard 3998: 2010 *Tree Work - Recommendations*.

3.2 Tree Survey Results

- 3.2.1 The tree survey revealed 50 items of woody vegetation, comprised of 47 individual trees and 3 groups of trees or hedges. Of the surveyed trees: 1 tree is retention category 'U', 8 trees are retention category 'B', and the remaining 38 trees and 3 groups are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.2 Species diversity at the site is good. The dominant tree species are Hawthorn, Cherry, Willow and Pine with several Horse Chestnut, Sweet Chestnut, Birch, and Cypress and occasional examples of other species including Norway Maple, Whitebeam, Hornbeam, Alder, Norway Spruce and Holly.
- 3.2.3 The majority of the trees on site are young or semi-mature, with some early-mature trees. There are only two mature trees (T15, T19). These two significant trees are situated in adjacent land to the south-west of the site.
- 3.2.4 The moderate value, retention category 'B' trees include a significant Norway Spruce (T1) on the northern boundary of the site, in good physical and structural condition, in a prominent position and with good amenity value; a semi-mature Willow (T5), located several metres south of the hawthorn group (G3), in good condition and contributing to the hawthorn screen between the site and the associated residential property.

- 3.2.5 Other retention category 'B' trees on site include an early-mature Hornbeam (T49) situated in the north-eastern area of the site, which is in good physical condition, providing good visual amenity in keeping with the surrounding landscape character, and a Norway Maple (T48), situated in the north-eastern corner of the site, which is in fair physical and structural health and has moderate amenity value.
- 3.2.6 The remaining retention category 'B' trees (T13, T15, T19, T23) are located on adjacent land, but overhang the boundary and provide important amenity value to the site.
- 3.2.7 The site includes a western boundary hedge (G4), an eastern boundary hedge (G28) and a line of hawthorn trees (G3), previously managed as a hedge, separating the proposed site from the access driveway to the residential property. The group G4 has previously been managed as a hedge, but has become overgrown with some sparse sections and now consists of low value, individual trees in poor condition. The group G28 is a managed hedge in good condition, but with low amenity value. Collectively these groups offer good landscape value and provide some screening between the site and the adjacent land.
- 3.2.8 Tree T50, a Horse Chestnut, is in very poor condition, with up to 75% dieback in the crown, making it unsuitable for retention in the current context of the site.
- 3.2.9 The remaining trees on site are retention category 'C'. The majority of these have been planted in the last ten to fifteen years. They are generally in good physical and structural condition and if required many could be transplanted for retention as garden trees within any future development.
- 3.2.10 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4) in such cases measurements were estimated and the condition values are indicative only.
- 3.2.11 The tree Root Protection Area (RPA) is detailed on the Tree Constraints Plan at Appendix 5. The RPA for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition.
- 3.2.12 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of the low value groups, in

conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

5. Signature

I trust this report provides all the required information.

Signed



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Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, ACIEM.

13th August 2018

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Appendices

Appendix 1: Authors Qualifications and Experience

Appendix 2: Survey Methodology and Limitations

Appendix 3: Explanation of Tree Descriptions

Appendix 4: Tree Data

Appendix 5: Tree Constraints Plan

Appendix 1: Authors Qualifications & Experience

Mr Adam Winson Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered.

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years, and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the Crown Court.

Mr James Brown BSc (Hons) Arboriculture. MArborA.

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James previously worked in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

Mr Dave Farmer FdSc (Arb). MArborA. PTI (Lantra).

Dave has a Foundation Degree in Arboriculture (with Distinction) and is qualified in Professional Tree Inspection. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. Dave has many years of experience within the tree care profession, including lecturing in arboriculture. His work focuses on diagnosing potential tree risk problems, and recommending appropriate treatments and work programmes.

Dr Felicity Stout Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA.

Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced Social Forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and has published in The Arboricultural Journal on this subject.

Mr Ricky Nos BSc (Hons), FdSc (Arboriculture), TechArborA.

Ricky is a trained arborist with 10 years of experience in the private and local authority sectors, taking in all aspects of arboricultural work. He has a Foundation Degree in Arboriculture and a BSc (Honours) in Outdoor Management, and is a technician Member of the Arboricultural Association. His main work consists of tree surveys for development projects, involving tree inspections and the preparation of Tree Reports to BS 5837:2012.

Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837 (2012) *Trees in relation to design, demolition and construction –Recommendations*. The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837 (2012). Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS5837 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998: 2010 - 'Tree Work: Recommendations'.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees for removal. These trees are in such a condition that any existing value would be lost within 10 years.

Appendix 4: Tree Data

Tree ID	Tree Species		Measurements										Tree Condition					Value		Management		
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amerity	Category	Works
T1	Spruce	<i>Picea abies</i>	Early-mature	7.5	1	210	No	0.5	2	3	3	3	No visual defects	Single stemmed, Vertical, Ivy covered	Normal, Minor deadwood	Shrubs and small Cypress at base.	Good	Good	>40 yrs	Moderate	B	No works
T2	Willow	<i>Salix matsudana 'Tortuosa'</i>	Semi-mature	5.5	1	110	No	1	1	2	2	2	No visual defects	Single stemmed, Slight lean, Old pruning wounds, Stubs	Minor deadwood, Slightly unbalanced	Planting stake at base.	Fair	Fair	20 to 40 yrs	Moderate	C	No works
G3	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	6	10 +	120 avg	No	0.5	See Plan				No visual defects	Multiple stemmed at base, Old pruning wounds, Stubs, Bark damage, Tight union	Old pruning wounds, Moderate deadwood	Occasional cherry and other saplings. Recently pruned back at south of crown leaving stubs and bark damage.	Fair	Fair	>40 yrs	Moderate	C	No works
G4	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	6	10 +	100 avg	No	0	See Plan				No visual defects, Soil compaction	Multiple stemmed at base, Old pruning wounds, Stubs, Ivy covered, Minor cavities, Minor cavity	Small / sparse, Minor deadwood	Ivy prevented detailed inspection. Previously topped at 4m. Sparse hedgerow with occasional Elder. Previously managed but now overgrown.	Poor	Poor	20 to 40 yrs	Moderate	C	Remove central section to facilitate access into the new development
T5	Willow	<i>Salix sp.</i>	Semi-mature	7.5	3	140, 140, 130	No	1.5	3	3	3	3	No visual defects	Twin stemmed at 0.5m, Vertical, Epicormic growths, Old pruning wounds, Stubs, Tight union	Normal, Minor deadwood	Large old pruning wounds at base, but no visible associated decay.	Fair	Fair	20 to 40 yrs	Moderate	B	Remove to facilitate new development

Tree Species		Measurements											Tree Condition						Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T6	Prunus	<i>Prunus sp.</i>	young	4	1	70	No	1	1	2	1	1	No visual defects	Single stemmed, Vertical	Normal		Good	Fair	>40 yrs	Low	C	No works
T7	Prunus	<i>Prunus sp.</i>	young	4.5	1	100	No	0.5	2	2	2	2	No visual defects	Twin stemmed at 0.5m, Slight lean, Bark damage	Normal		Fair	Fair	>40 yrs	Low	C	No works
T8	Prunus	<i>Prunus sp.</i>	young	4.5	1	50	No	0.5	2	2	2	2	No visual defects	Twin stemmed at 0.5m, Slight lean, Bark damage	Normal		Fair	Fair	>40 yrs	Low	C	No works
T9	Prunus	<i>Prunus sp.</i>	young	5.5	1	100	No	1	2	2	2	2	No visual defects	Single stemmed, Vertical, Stubs	Normal		Good	Good	>40 yrs	Low	C	No works
T10	Prunus	<i>Prunus sp.</i>	young	4	1	70	No	1	1	2	1	1	No visual defects	Single stemmed, Vertical	Normal		Good	Fair	>40 yrs	Low	C	No works
T11	Prunus	<i>Prunus sp.</i>	young	5	1	70	No	1	1	2	1	1	No visual defects	Single stemmed, Slight lean, Stubs	Normal		Good	Good	>40 yrs	Low	C	No works

Tree ID	Tree Species		Measurements										Tree Condition					Value		Management		
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T12	Holly	<i>Ilex aquifolium</i>	Semi-mature	4	1	120	No	2	1	1	1	1	No visual defects	Single stemmed, Old pruning wounds, Stubs	Normal	Growing within hedgerow.	Good	Fair	20 to 40 yrs	Low	C	No works
T13	Apple	<i>Malus sp.</i>	Early-mature	5	2	220, 200	No	1	3	3	4	1	No visual defects	Twin stemmed at base, Stubs, Old pruning wounds, Minor cavities, Minor cavity	Normal, Minor deadwood	Previously topped at 4m	Fair	Fair	>40 yrs	Moderate	B	No works
T14	Horse Chestnut	<i>Aesculus hippocastanum</i>	Semi-mature	6	1	110	No	2	2	3	1	1	No visual defects	Single stemmed, Slight lean, Old pruning wounds, Stubs	Slightly unbalanced	Growing from base of fence.	Fair	Fair	20 to 40 yrs	Low	C	No works
T15	Birch	<i>Betula pendula</i>	Mature	15	1	380	No	3	5	5	5	5	No visual defects	Multiple stemmed at 3m, Old pruning wounds, Stubs, Ivy covered	Normal, Minor deadwood	Stem is beginning to surround the fence, damaging the fence and the tree.	Good	Good	>40 yrs	Moderate	B	No works
T16	Birch	<i>Betula pendula</i>	Young	5.5	1	70	No	0.5	2	2	2	2	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Low	C	No works
T17	Sorbus	<i>Sorbus aria</i>	Semi-mature	6.5	1	170	No	2	2	2	2	2	No visual defects	Single stemmed, Slight lean, Tight union, Partially included bark	Normal	Planting stake at base. Tight unions in crown have good natural bracing.	Good	Good	>40 yrs	Moderate	C	Remove to facilitate new development

Tree ID	Tree Species		Measurements										Tree Condition					Value		Management		
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T18	Prunus	<i>Prunus sp.</i>	Early-mature	6	1	120	No	1.5	3	2	2	1	No visual defects, Soil compaction	Single stemmed, Slight lean, Old pruning wounds, Stubs, Bark damage, Ivy covered	Small / sparse, Moderate deadwood	Building waste around base. Recently pruned creeper around stem and hanging in crown.	Poor	Poor	<10 yrs	Low	C	No works
T19	Willow	<i>Salix caprea</i>	Mature	14	6	350 avg	Yes	2	8	6	4	6	No visual defects	Multiple stemmed, Stubs, Pruning wounds from crown lifting, Bark damage	Normal, Minor deadwood	Tree growing out of centre of a 4m tall shed.	Good	Fair	20 to 40 yrs	Moderate	B	No works
T20	Hawthorn	<i>Crataegus monogyna</i>	Early-mature	7	7	100 avg	No	1	2	3	3	1	No visual defects	Multiple stemmed at base, Old pruning wounds, Stubs, Bark damage, Ivy covered	Normal, Minor deadwood	Growing on bank of drainage channel.	Fair	Poor	20 to 40 yrs	Low	C	No works
T21	Hawthorn	<i>Crataegus monogyna</i>	Early-mature	6.5	2	120, 100	No	1	2	2	2	2	Waterlogged, Trenching / excavations, Root damage /loss	Twin stemmed at 1m, Old pruning wounds, Stubs, Tight union, Partially included bark	Normal	Growing on edge of drainage channel	Poor	Poor	20 to 40 yrs	Low	C	No works
T22	Elder	<i>Sambucas nigra</i>	Semi-mature	5.5	1	110	No	1	2	2	1	1	Waterlogged, Trenching / excavations	Twin stemmed at 2m, Vertical, Old pruning wounds, Stubs, Ivy covered	Minor deadwood	Growing on bank of drainage channel.	Fair	Fair	>40 yrs	Low	C	No works
T23	Alder	<i>Alnus glutinosa</i>	Early-mature	12	2	450, 300	No	1	5	5	5	5	Waterlogged, Trenching / excavations	Twin stemmed at base, Old pruning wounds, Stubs, Ivy covered	Normal, Moderate deadwood	Previously topped at 5m. Two close-growing trees forming a single canopy. Phone lines through crown.	Fair	Fair	20 to 40 yrs	Moderate	B	No works

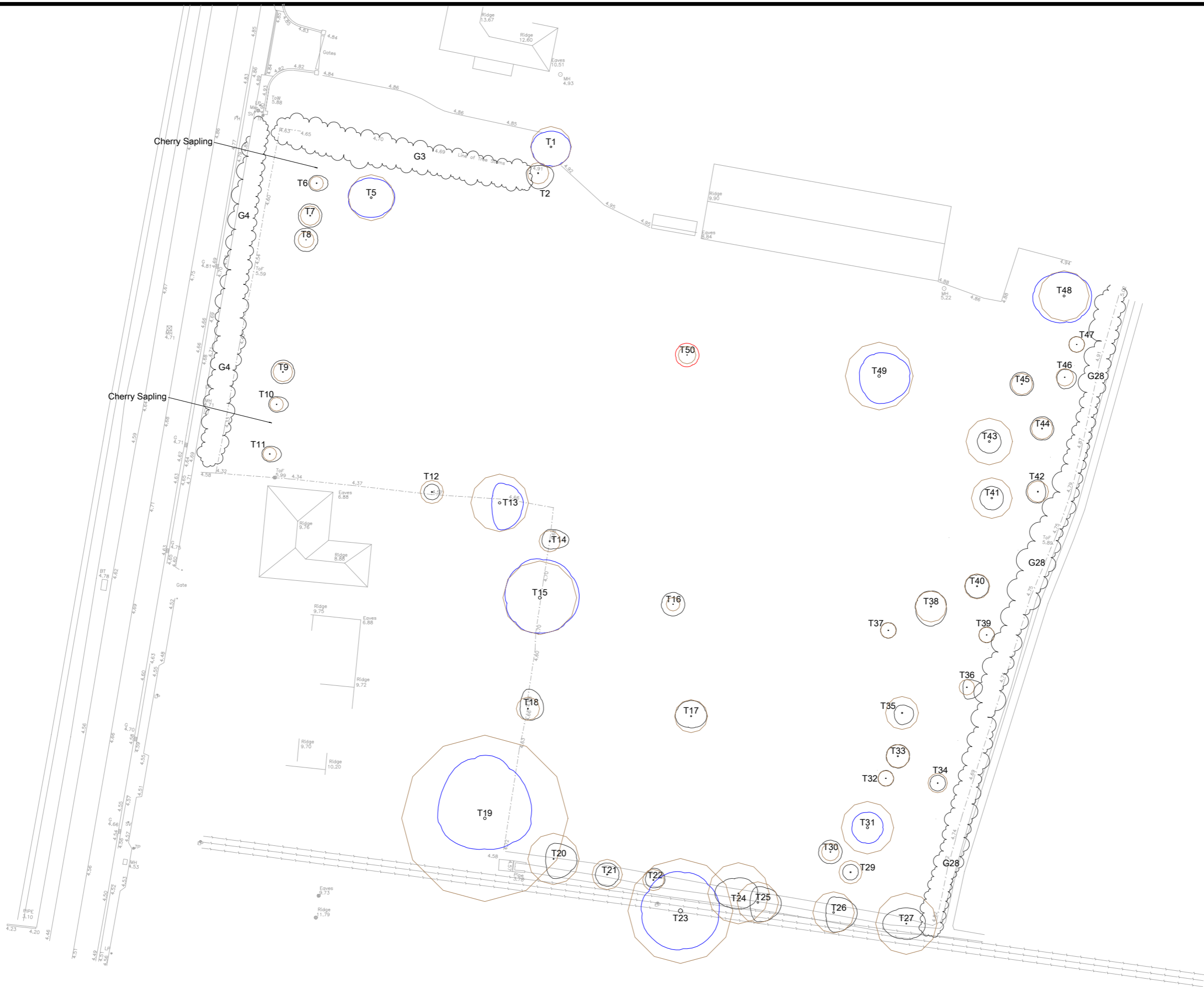
Tree ID	Tree Species		Measurements										Tree Condition					Value		Management		
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T24	Hawthorn	<i>Crataegus monogyna</i>	Early-mature	7	10 +	100 avg	No	0.5	2	3	2	3	Waterlogged, Trenching / excavations	Multiple stemmed at base, Old pruning wounds, Stubs, Ivy covered, Tight union	Normal, Minor deadwood	Previously topped at 4m.	Fair	Fair	>40 yrs	Low	C	No works
T25	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	7	4	130, 110, 100, 80	No	0.5	2	3	3	1	Waterlogged, Trenching / excavations	Multiple stemmed at base, Old pruning wounds, Stubs, Ivy covered, Tight union	Normal, Minor deadwood	Previously topped at 4m.	Fair	Fair	>40 yrs	Low	C	No works
T26	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	6	4	130, 110, 100, 80	No	0.5	2	3	3	1	Waterlogged, Trenching / excavations	Multiple stemmed at base, Old pruning wounds, Stubs, Ivy covered, Tight union	Normal, Minor deadwood	Previously topped at 4m.	Fair	Fair	>40 yrs	Low	C	No works
T27	Hawthorn	<i>Crataegus monogyna</i>	Early-mature	7	10 +	100 avg	No	0.5	2	3	2	3	Waterlogged, Trenching / excavations	Multiple stemmed at base, Old pruning wounds, Stubs, Ivy covered, Tight union	Normal, Minor deadwood	Previously topped at 4m.	Fair	Fair	>40 yrs	Low	C	No works
G28	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	2	10 +	80 avg	No	0.2	See Plan				No visual defects	Multiple stemmed at base, Stubs, Old pruning wounds	Normal	Managed boundary hedge.	Good	Good	>40 yrs	Low	C	No works
T29	Pine	<i>Pinus sylvestris</i>	Young	5	1	120	No	0.5	1	1	1	1	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Low	C	No works

Tree Species		Measurements											Tree Condition						Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T30	Birch	<i>Betula pendula</i>	Young	6	1	90	No	0.5	2	2	2	2	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Low	C	No works
T31	Horse Chestnut	<i>Aesculus hippocastanum</i>	Semi-mature	8.5	1	270	No	2	2	2	2	2	No visual defects	Single stemmed, Vertical, Epicormic growths	Normal		Good	Good	>40 yrs	Moderate	C	Remove to facilitate new development
T32	Sweet Chestnut	<i>Castanea sativa</i>	Young	5.5	1	80	No	1	1	1	1	1	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Low	C	Remove to facilitate new development
T33	Pine	<i>Pinus nigra var.maritima</i>	Young	5	1	120	No	0.2	2	2	2	2	No visual defects	Single stemmed, Slight lean	Normal	Planting stake at base.	Good	Fair	>40 yrs	Low	C	Remove to facilitate new development
T34	Pine	<i>Pinus sylvestris</i>	Young	5	1	100	No	0.2	1	1	1	1	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Low	C	No works

Tree Species		Measurements											Tree Condition						Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T35	Horse Chestnut	<i>Aesculus hippocastanum</i>	Semi-mature	6.5	1	170	No	1	1	2	2	1	No visual defects	Single stemmed, Vertical, Epicormic growths, Decay fungi	Major dieback, Moderate deadwood	Dieback due to fungal fruiting bodies on main stem. Buds opening only up to 2m. Tree appears to be in decline and may be unsuitable near any development. Planting stake at base.	Poor	Poor	10 to 20 yrs	Low	C	No works
T36	Pine	<i>Pinus nigra var.maritima</i>	Young	4	1	80	No	0.2	1	2	2	1	No visual defects	Single stemmed, Significant lean	Normal		Fair	Poor	>40 yrs	Low	C	No works
T37	Birch	<i>Betula pendula</i>	Young	6	1	80	No	0.2	1	1	1	1	No visual defects	Single stemmed, Vertical	Normal		Fair	Fair	>40 yrs	Low	C	Remove to facilitate new development
T38	Maple	<i>Acer pseudoplatanus</i>	Semi-mature	7.5	1	160	No	1	2	2	3	2	No visual defects	Single stemmed, Vertical, Tight union	Normal		Fair	Fair	>40 yrs	Low	C	No works
T39	Pine	<i>Pinus nigra var.maritima</i>	Young	4	1	80	No	0.2	1	1	1	1	No visual defects	Single stemmed, Vertical	Normal		Fair	Fair	>40 yrs	Low	C	No works

Tree Species		Measurements						Tree Condition												Value	Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T40	Pine	<i>Pinus sylvestris</i>	Young	5	1	130	No	0.2	2	2	2	2	No visual defects	Single stemmed, Slight lean	Normal		Fair	Fair	>40 yrs	Low	C	No works
T41	Lawson Cypress	<i>Chamaecyparis lawsoniana</i>	Semi-mature	6	1	210	No	0.2	2	2	2	2	No visual defects	Single stemmed, Vertical	Normal, Minor deadwood		Fair	Fair	>40 yrs	Moderate	C	No works
T42	Pine	<i>Pinus nigra var.maritima</i>	Semi-mature	4.5	1	110	No	0.5	2	1	2	2	No visual defects	Multiple stemmed at 1.5m, Vertical	Normal		Fair	Fair	>40 yrs	Low	C	No works
T43	Lawson Cypress	<i>Chamaecyparis lawsoniana</i>	Semi-mature	7	1	240	No	0.5	2	2	2	2	No visual defects	Single stemmed, Vertical, Tight union	Normal, Minor deadwood		Fair	Fair	>40 yrs	Low	C	Remove to facilitate new development
T44	Pine	<i>Pinus nigra var.maritima</i>	Semi-mature	4.5	1	110	No	0.5	2	2	2	2	No visual defects	Twin stemmed at 2m, Tight union	Normal		Good	Fair	>40 yrs	Low	C	Remove to facilitate new development
T45	Pine	<i>Pinus nigra var.maritima</i>	Semi-mature	5	1	110	No	1	2	2	2	2	No visual defects	Single stemmed, Vertical, Bark damage	Normal	Minor bark damage at base.	Fair	Fair	>40 yrs	Low	C	No works

Tree Species		Measurements						Tree Condition					Value	Management								
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiology	Structural	Life Expectancy	Amenity	Category	Works
T46	Sweet Chestnut	<i>Castanea sativa</i>	Young	6	1	90	No	0.5	1	2	2	1	No visual defects	Single stemmed, Vertical, Bark damage	Normal	Bark damage at base with minor decay.	Fair	Fair	20 to 40 yrs	Low	C	No works
T47	Pine	<i>Pinus nigra var.maritima</i>	Young	3.5	1	80	No	0.5	1	1	1	1	No visual defects	Single stemmed, Vertical	Normal	Tree stake and tree tie still attached.	Fair	Fair	>40 yrs	Low	C	No works
T48	Maple	<i>Acer platanoides</i>	Early-mature	8	1	260	No	2	3	4	4	4	No visual defects	Single stemmed, Vertical, Bark damage, Old pruning wounds, Epicormic growths, Stubs	Normal, Minor deadwood		Fair	Fair	>40 yrs	Low	B	No works
T49	Hornbeam	<i>Carpinus betulus</i>	Early-mature	10	2	310, 160	No	1.5	3	4	4	3	No visual defects	Twin stemmed at 0.5m, Epicormic growths, Old pruning wounds, Stubs, Tight union, Partially included bark	Normal		Good	Fair	>40 yrs	Moderate	B	Crown raise to 2.5m all round to facilitate new development
T50	Horse Chestnut	<i>Aesculus hippocastanum</i>	Young	6	1	90	No	0.5	2	2	2	2	No visual defects	Single stemmed, Vertical, Epicormic growths, Stubs, Bark damage, Minor decay	75% dead / absent, Major dieback, Major deadwood	Many bleeding lesions on main stem. Only one live stem.	Decline	Poor	<10 yrs	Low	U	Remove regardless of any future development



AWA
TREE CONSULTANTS

**Appendix 5:
Tree Constraints Plan**

61 Haxey Lane, Haxey
Ref: AWA2189

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:500 PAPER: A3

	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED
	CATEGORY U: FOR REMOVAL
	RPA: ROOT PROTECTION AREA
	TREE STEM