



# **ARBORICULTURAL REPORT & Impact Assessment to BS 5837:2012 at:**

***Birkwood Primary School,  
Darfield Road,  
Cudworth,  
Barnsley  
S72 8HG***

Prepared for:  
***Barnsley Metropolitan Borough Council***

Date: *July 2023*

Reference: AWA5533



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# 1. Introduction

## 1.1 Instructions and Brief

- 1.1.1 We have been instructed by Barnsley Metropolitan Borough Council 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 July 2023.
- 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, Principal and Director of AWA Tree Consultants Ltd. The tree survey data collection was carried out by Mr James Brown, BSc (Hons) Arboriculture, MArborA, Arboriculturist at AWA Tree Consultants Ltd.
- 1.2.6 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 please refer to the Tree Constraints Plan at **Appendix 5** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

## 2. The Site

### 2.1 Location and Description

2.1.1 The site comprises part of the school playing field of Birkwood Primary School located on Darfield Road in Cudworth, Barnsley, South Yorkshire. Neighbouring residential properties are situated to the north east and south east of the site, with the wider school site situated to the south west and north west.

2.1.2 The approximate area of the survey is highlighted in the (2022 Google Earth) image below:



## 3. The Trees

### 3.1 Legal

- 3.1.1 The following advice is for guidance purposes only. Some trees are protected by legislation, and it is essential that the legal status of trees is established prior to carrying out works to them. Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record. Tree Preservation Orders, Conservation Areas, Planning Conditions, Felling Licences or Restrictive Covenants legally protect many trees in the UK.
- 3.1.2 An online search was undertaken with Barnsley Metropolitan Borough Council on the 10<sup>th</sup> of July 2023 to check whether any trees at the site are protected by a Tree Preservation Order or are located within a Conservation Area. As of this date no trees at the site are protected by a Tree Preservation Order or are within a Conservation Area.
- 3.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm if any trees are covered by a Tree Preservation Order or are within a Conservation Area. If either applies, then statutory permission is required before any works can take place (unless such work is approved as part of full planning permission).
- 3.1.4 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to search for areas of ancient woodlands listed on the Ancient Woodland (DEFRA 2021), and a check for catalogued Ancient and Veteran trees using the woodland trust ancient tree inventory (ATI) (Woodland Trust 2021).
- 3.1.5 It was confirmed that there are no designated ancient woodlands or veteran or ancient trees within the survey area.
- 3.1.6 Trees provide a wide range of habitats for many species, some of which are legally protected such as bats, nesting birds, badgers and dormice. It is essential that appropriate care is taken to ensure that this legislation is not contravened.
- 3.1.7 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.
- 3.1.8 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 46 items of woody vegetation, comprised of 41 individual trees and 5 tree groups.
- 3.2.2 Of the surveyed trees: 1 tree is retention category 'A', 7 trees are retention category 'B', and 38 trees and tree groups are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).
- 3.2.3 Full details of the surveyed trees, tree groups and hedges are provided in the attached tree data schedule at Appendix 4. General comments are provided below:
- 3.2.4 The tree cover at the site borders the north eastern and south eastern boundaries of the school playing field.
- 3.2.5 The highest value individual tree at the site is T31, a large mature Sycamore situated in a prominent position which is in good condition with good future prospects and long term value.
- 3.2.6 Cherries T16, T23 and T24, Birch T39, Sycamore T42 and Field Maples T44 and T46 are early mature trees in good condition and of moderate value.
- 3.2.7 While the remaining trees and tree groups at the site are of relatively low value individually, they provide collective amenity to the site and screening between the site and the neighbouring residential properties.
- 3.2.8 T8, G19, T20 and T42 are adjacent and were inaccessible and so were only given cursory inspections with measurements estimated and condition values indicative only.
- 3.2.9 The tree Root Protection Area (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. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.
- 3.2.10 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

### 3.3 Photographs

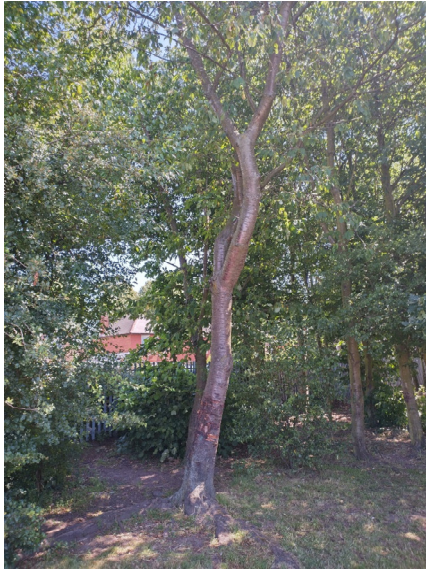


Photo 1: T16 from west



Photo 2: T23 from south west



Photo 3: T24 from west

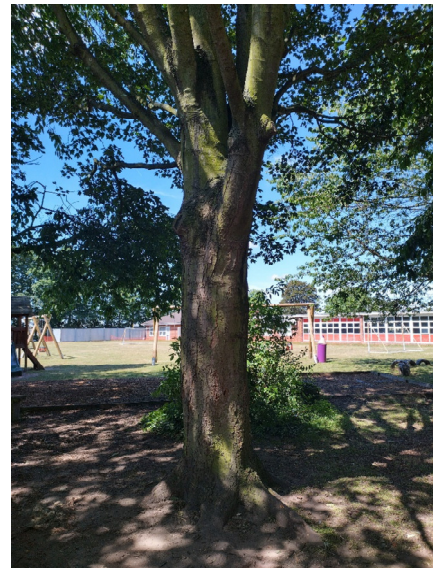


Photo 4: T31 from east



Photo 5: T34 from south west

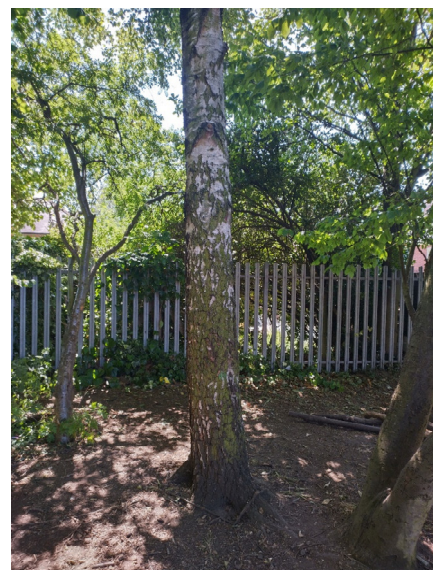


Photo 6: T39 from north west



Photo 7: T42 from north west



Photo 8: T44 from north west



Photo 9: T46 from north west

## 4. Arboricultural Impact Assessment

### 4.1 Proposed New Development

4.1.1 It is proposed to build a new artificial grass pitch at the site. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

### 4.2 Direct Impacts

4.2.1 From assessing the new development proposals, 6 trees will require removal to facilitate the development as they are situated within the footprint of the proposed new artificial grass pitch.

4.2.2 The trees requiring removal to facilitate the development are T34 to T37, T39 and T40.

4.2.3 T34 to T37 and T40 are low value retention category 'C' and Birch T39 is moderate value retention category 'B'.

4.2.4 The removal of T34 to T37 and T40 will have only minor negative impact. While the trees provide some screening between the site and the neighbouring residential properties, new boundary plantings of more suitable screening species would easily mitigate the screening the trees currently provide.

4.2.5 While the removal of T39 will have some negative impact in the short term, the new tree plantings at the site would help mitigate for the tree's removal in the medium to long term.

4.2.6 Retained trees and tree group T23, G43, T44 and T45 require pruning works to facilitate the development, reducing the crown of T23 from the south west and the crowns of G43, T44 and T45 from the north west, to provide adequate clearance from the proposed new artificial grass pitch fence. T23, G43, T44 and T45 would readily tolerate the required minor pruning works with little negative impact.

### 4.3 Indirect Impacts

4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendices 5 and 6, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.

4.3.2 The 3m run off associated with the proposed new artificial grass pitch encroaches into the edge of the RPAs of retained trees T23, T31, T32, T38,

T41, T42, T44 and T45, however the encroachment into the RPAs is minor and the retained trees should remain largely unimpacted by the works provided care is taken during construction.

- 4.3.3 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of materials, including topsoil, in relation to the trees.

#### **4.4 Protection of the Retained Trees**

- 4.4.1 The retained trees may require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.4.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

## 5. Signature

I trust this report provides all the required information.

Signed



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

**11<sup>th</sup> July 2023**

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Chartered Foresters  
Registered Consultant

# 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 6: Tree Impacts 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 Principal 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 he 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. Adam has also undertaken locum Tree Officer work for several local authorities.

### **Mr James Brown, BSc (Hons) Arboriculture, MArborA, PTI (Lantra), QTRA Registered**

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Foresters student award. He is a Professional Member of the Arboricultural Association, an Associate of the Institute of Chartered Foresters, and he is working towards becoming a Chartered Arboriculturist. James joined AWA in 2016, he has several years' experience as an Arboricultural Consultant, he previously worked in Europe's largest container tree nursery and he has experience of local authority Tree Officer work.

### **Dr Felicity Stout, PhD, MA, BA (Hons), Cert Ed Forestry, TechArborA, PTI (Lantra)**

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 she has work published in The Arboricultural Journal on this subject. As well as working at AWA Felicity is the Tree Conservation Officer for the Peak District National Park Authority.

### **Mr James Godfrey, BA (Hons), Dip Forestry and Arboriculture Level 4, Cert Arb L3, TechArborA, QTRA Registered**

James has extensive arboricultural experience working as a team leader within the public and private sector. By achieving a Distinction Star in the Extended Diploma in Forestry and Arboriculture, James was able to use his knowledge to inform and carry out appropriate maintenance that ensured the long term wellbeing of trees across the UK. During his time at Darlington Borough Council, James provided on site assessment and the management of the remedial works required to ensure safe and suitable retention of trees that provide a multitude of benefits to the urban environment. Currently, James is completing a Foundation Degree in Arboriculture and Tree Management, while working at AWA.

### **Mr Joe Thomas, MSci Biology, Award L4 Arboriculture, TechArborA**

Joe achieved a first class degree in biology with an integrated Masters (MSci) from the University of Sheffield. Additionally, he has a Level 4 Award in Arboriculture. Joe joined AWA in 2022 after an Urban Forestry role with the Sheffield and Rotherham Wildlife Trust and Sheffield City Council, where he gained a variety of experience in different aspects of the arboriculture sector.

### **Mr James Boyle, HND Level 5 Arboriculture and Urban Forestry, Dip Arboriculture Level 4, TechArborA**

Jim joined AWA in 2022, after having worked within the tree care profession for several years, alongside studying at college and university. During this time, he gained a wealth of experience and several professional and practical NPTC qualifications in the tree care industry. Jim has studied Arboriculture and Urban Forestry at Merrist Wood College in Surrey, Plumpton College in Sussex and University of Highlands and Islands in the Scottish Highlands, where he achieved a distinction in the Higher National Diploma Level 5.

### **Miss Lucy Garbutt, MSc Animal Behaviour, BSc (Hons) Biology, CIEEM membership**

Lucy graduated with a masters degree in Animal Behaviour from the UK's highest rated university, St Andrews of Scotland, immediately following the completion of her BSc degree in Biology from Lancaster University. Lucy has experience in botany and plant science and moved into arboriculture after previous experience of protected species and botanical surveys with a large environmental consulting company.

## Appendix 2: Survey Methodology and Limitations

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 BS 5837:2012 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 in 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 unsuitable for retention.** These trees are in such a condition that any existing value would be lost within 10 years.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G1	Privet. Sycamore.	<i>Ligustrum sp.</i> <i>Acer sp.</i>	Semi-mature	7	10	60	Yes	0.5	See plan				Limited access	Old pruning wounds. Stubbs. Tight unions. Bark damage	Old pruning wounds. Minor deadwood	Adjacent young to semi mature linear tree group. Predominantly shrubby Privet with occasional taller Sycamore.	Good	Fair	20 to 40 yrs	Moderate	C	No works required
T2	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	6	2	80, 100	No	1.5	1.5	1.5	2.5	2.5	Soil compaction	Twin stemmed at 0.5m. Slight lean south west. Old pruning wounds. Epicormic growths. Bark damage	Old pruning wounds. Minor deadwood		Good	Good	20 to 40 yrs	Low	C	No works required
T3	Plum	<i>Prunus sp.</i>	Early-mature	9	4	170, 220, 180, 150	No	1	4	2	3.5	4.5	Soil compaction	Multiple stemmed at 0.5m. Vertical. Old pruning wounds. Bark damage. Tight unions. Partially included bark. Rubbing stems. Minor cavities	Minor deadwood		Good	Fair	10 to 20 yrs	Moderate	C	No works required
T4	Field Maple	<i>Acer campestre</i>	Early-mature	11	2	90, 240	No	1.5	3	2	2.5	2	Soil compaction. Exposed roots. Girdled roots	Twin stemmed at 1m. Vertical. Bark damage. Epicormic growths	Minor deadwood		Good	Good	>40 yrs	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T5	Field Maple	<i>Acer campestre</i>	Semi-mature	13	2	80, 190	No	2.5	6	2	3	1.5	Soil compaction. Exposed roots. Girdled roots	Twin stemmed at 0.5m. Slight lean north east. Bark damage. Tight unions. Partially included bark. Old pruning wounds	Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	No works required
T6	Field Maple	<i>Acer campestre</i>	Semi-mature	13	2	190, 140	No	2	4	2.5	2.5	2	Soil compaction. Girdled roots. Exposed roots	Twin stemmed at 0.5m. Vertical. Bark damage	Minor deadwood	Significant bark damage to stems but with no associated decay. Rubber fittings embedded in stem.	Fair	Fair	10 to 20 yrs	Moderate	C	No works required
T7	Field Maple	<i>Acer campestre</i>	Semi-mature	13	1	160	No	6	4	3	2	2.5	Soil compaction	Single stemmed. Vertical. Bark damage	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	C	No works required
T8	Holly	<i>Ilex aquifolium</i>	Young	7	1	80	Yes	0.5	2	2	1.5	1.5	Limited access	Single stemmed. Vertical	Minor deadwood	Adjacent. No access. Growing through fence.	Good	Good	10 to 20 yrs	Low	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T9	Plum	<i>Prunus sp.</i>	Early-mature	13	3	190, 180, 130	No	1.5	2	1.5	3.5	5	Soil compaction. Exposed roots. Girdled roots. Bark damage	Multiple stemmed at base. Slight lean south west. Old pruning wounds. Stubs. Epicormic growths. Bark damage	Minor deadwood	South eastern stem previously topped	Good	Fair	20 to 40 yrs	Moderate	C	No works required
T10	Field Maple	<i>Acer campestre</i>	Semi-mature	14	1	230	No	5	3	2.5	4	3	Soil compaction. Exposed roots. Girdled roots	Single stemmed. Slight lean south. Old pruning wounds. Stubs. Bark damage	Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	No works required
G11	Cherry	<i>Prunus sp.</i>	Early-mature	14	6	150	No	2	5	3	3	6	Soil compaction. Exposed roots. Girdled roots. Bark damage	Multiple stemmed at base. Vertical. Bark damage. Tight unions. Partially included bark. Old pruning wounds. Ivy covered	Minor deadwood. Old pruning wounds. Ivy covered	Cherry and Plum forming one crown. Ivy prevented detailed inspection. Large exposed roots.	Fair	Fair	20 to 40 yrs	Moderate	C	No works required
T12	Cherry	<i>Prunus sp.</i>	Semi-mature	13	1	200	No	2	1	0.5	3.5	4.5	Soil compaction. Exposed roots. Girdled roots	Single stemmed. Slight lean west. Ivy covered	Minor deadwood	Ivy prevented detailed inspection	Good	Fair	10 to 20 yrs	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T13	Plum	<i>Prunus sp.</i>	Semi-mature	11	2	130, 120	No	1	0.5	1	3	5	Soil compaction. Exposed roots. Girdled roots	Twin stemmed at 1m. Slight lean south west. Bark damage	Minor dieback. Minor deadwood		Fair	Fair	10 to 20 yrs	Moderate	C	No works required
T14	Hawthorn	<i>Crataegus monogyna</i>	Young	4.5	3	40, 30, 80	No	0.5	2	0.5	2.5	3	Soil compaction	Multiple stemmed at 0.5m. Slight lean west. Old pruning wounds. Bark damage	Minor deadwood. Old pruning wounds		Good	Fair	20 to 40 yrs	Low	C	No works required
T15	Plum	<i>Prunus sp.</i>	Semi-mature	12	1	180	No	1.5	2	1	2.5	2.5	Soil compaction	Single stemmed. Slight lean east. Epicormic growths. Old pruning wounds. Bleeds	Minor deadwood		Good	Fair	10 to 20 yrs	Moderate	C	No works required
T16	Cherry	<i>Prunus sp.</i>	Early-mature	16	1	330	No	4.5	4.5	4	4.5	6	Exposed roots. Soil compaction. Girdled roots. Bark damage	Single stemmed. Slight lean south east. Old pruning wounds. Bark damage. Bleeds	Minor dieback. Minor deadwood		Fair	Fair	20 to 40 yrs	Moderate	B	No works required
T17	Cherry	<i>Prunus sp.</i>	Semi-mature	15	1	220	No	2	7	5	2	1.5	Soil compaction. Girdled roots. Bark damage. Exposed roots	Single stemmed. Slight lean north east. Epicormic growths. Tight unions. Bleeds	Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G18	Plum. Field Maple. Ash. Hawthorn. Holly.	<i>Prunus sp.</i> <i>Acer sp.</i> <i>Fraxinus sp.</i> <i>Crataegus sp.</i> <i>Ilex sp.</i>	Semi-mature	17	10	150	Yes	7	See plan				Soil compaction. Girdled roots. Bark damage. Exposed roots	Bark damage. Minor cavities. Minor decay	Minor deadwood. Minor dieback	Group of young to semi mature tall slender trees. Predominantly Plum and Field Maple with occasional Ash and occasional shrubby Hawthorn and Holly understorey.	Fair	Fair	20 to 40 yrs	Moderate	C	No works required
G19	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	19	6	180	Yes	5	See plan				Limited access around base	Tight unions. Partially included bark. Bark damage	Minor deadwood. Minor dieback	Adjacent. No access. Sycamore stems forming one crown.	Good	Fair	20 to 40 yrs	Moderate	C	No works required
T20	Birch	<i>Betula pendula</i>	Semi-mature	20	1	200	Yes	4	3	4	5	3.5	Limited access around base	Single stemmed. Vertical. Dead Ivy covered. Old pruning wounds. Stubs	Minor dieback. Minor deadwood	Adjacent. No access.	Fair	Fair	10 to 20 yrs	Moderate	C	No works required
T21	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	6	3	110, 120, 60	No	1	1.5	1.5	3	3.5	Soil compaction. Exposed roots. Bark damage	Multiple stemmed at 0.5m. Slight lean west. Old pruning wounds. Stubs. Tight unions. Epicormic growths. Rubbing stems	Minor deadwood. Old pruning wounds		Good	Fair	20 to 40 yrs	Low	C	No works required
T22	Oak	<i>Quercus robur</i>	Semi-mature	9	1	190	No	1.5	6	1.5	0.5	1.5	Soil compaction. Exposed roots	Single stemmed. Slight lean north west	Minor deadwood		Good	Good	20 to 40 yrs	Low	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition							Value		Management	
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T23	Cherry	<i>Prunus sp.</i>	Early-mature	15	1	330	No	1.5	1.5	4.5	7	6.5	Exposed roots. Bark damage	Single stemmed. Slight lean south west. Bark damage. Bleeds	Minor dieback. Minor deadwood		Fair	Fair	20 to 40 yrs	Moderate	B	Pruning works required to facilitate development - Reduce crown from south west to provide adequate clearance from proposed new AGP fence
T24	Cherry	<i>Prunus sp.</i>	Early-mature	14	1	280	No	1.5	3	3	2.5	5	Exposed roots. Girdled roots. Bark damage	Single stemmed. Vertical. Bark damage	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	B	No works required
T25	Field Maple	<i>Acer campestre</i>	Young	14	1	120	No	11	1.5	2	0.5	0.5	No visual defects. Soil compaction	Single stemmed. Slight lean north east. Epicormic growths. Old pruning wounds. Bark damage	Moderate dieback. Minor deadwood		Poor	Fair	10 to 20 yrs	Moderate	C	No works required
T26	Field Maple	<i>Acer campestre</i>	Young	14	1	170	No	5	2	1.5	2.5	1.5	Soil compaction	Single stemmed. Vertical. Bark damage	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	C	No works required
T27	Hawthorn	<i>Crataegus monogyna</i>	Young	7	2	80, 120	No	2	2	3	2.5	0.5	Soil compaction	Twin stemmed at 0.5m. Slight lean north east. Old pruning wounds. Bark damage	Minor deadwood		Good	Fair	20 to 40 yrs	Low	C	No works required

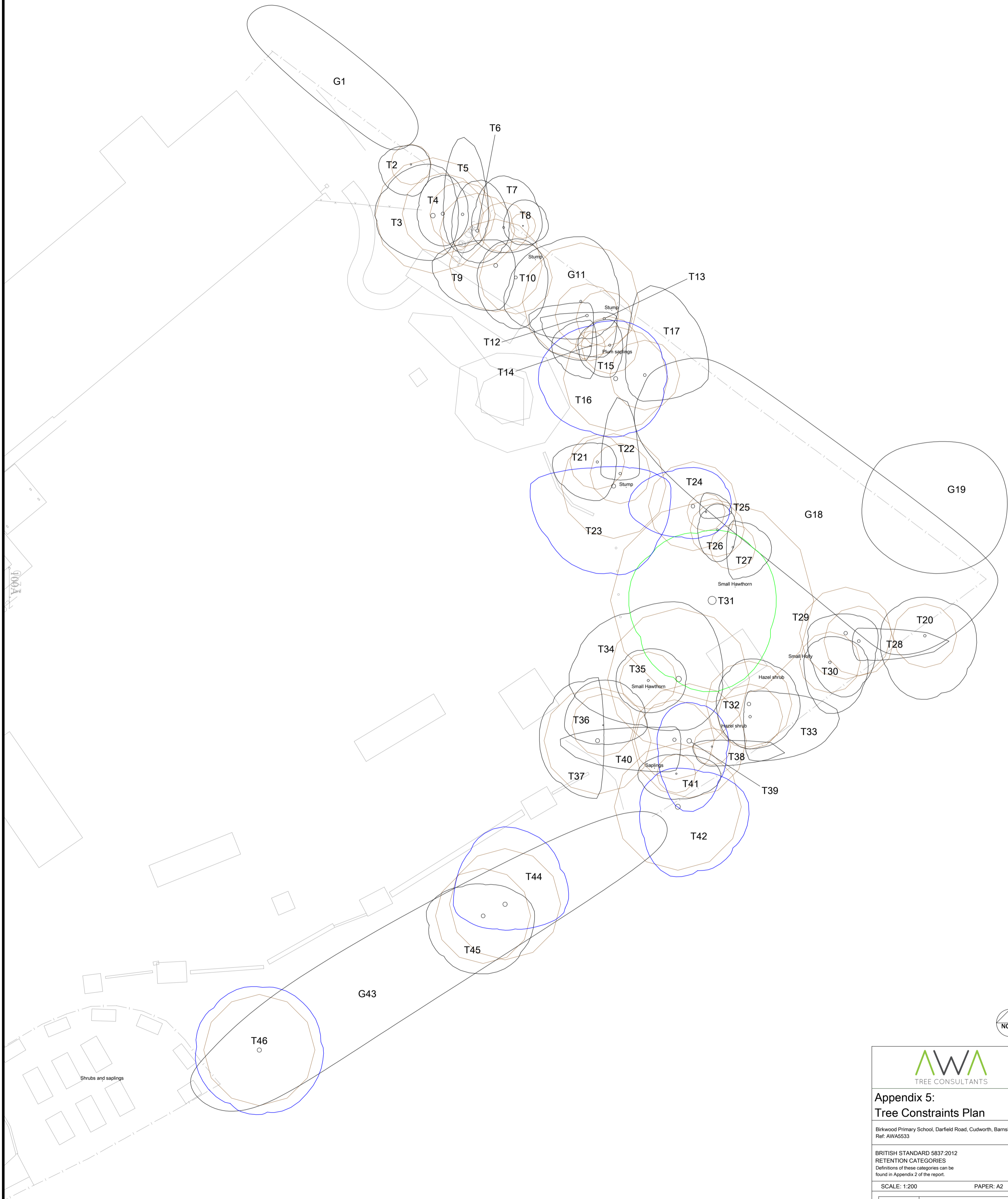
Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value			Management			
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T28	Oak	<i>Quercus robur</i>	Semi-mature	15	1	220	No	4	1	7	1.5	0.5	Soil compaction	Single stemmed. Slight lean south east. Bark damage. Old pruning wounds	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	C	No works required
T29	Birch	<i>Betula pendula</i>	Semi-mature	20	2	200, 210	No	7	1.5	2.5	5	3	Soil compaction. Exposed roots. Bark damage	Twin stemmed at base. Vertical. Bark damage	Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	No works required
T30	Hazel	<i>Corylus avellana</i>	Semi-mature	7	2	150, 120	No	1	2	3	4	2	Soil compaction	Twin stemmed at base. Slight lean south east. Epicormic growths. Ivy covered	Minor deadwood. Ivy covered	Ivy prevented detailed inspection	Good	Fair	20 to 40 yrs	Low	C	No works required
T31	Sycamore	<i>Acer pseudoplatanus</i>	Mature	19	1	640	No	2.5	5.5	5	7	6.5	Soil compaction. Exposed roots. Girdled roots. Bark damage	Single stemmed. Vertical. Old pruning wounds. Bark damage. Tight unions. Partially included bark	Minor deadwood. Old pruning wounds		Good	Fair	>40 yrs	High	A	No works required
T32	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	20	1	270	No	9	3.5	4	3.5	2.5	Soil compaction	Single stemmed. Vertical. Old pruning wounds. Ivy covered	Minor dieback. Minor deadwood		Fair	Fair	10 to 20 yrs	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition							Value		Management	
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T33	Ash	<i>Fraxinus excelsior</i>	Semi-mature	12	2	150, 140	No	3	2	7	3.5	0.5	Soil compaction	Twin stemmed at 1m. Slight lean south east	Minor deadwood		Good	Good	10 to 20 yrs	Moderate	C	No works required
T34	Cherry	<i>Prunus sp.</i>	Early-mature	18	2	400, 200	No	1.5	6	3.5	4	8.5	Soil compaction. Exposed roots. Girdled roots. Bark damage	Twin stemmed at 0.5m. Slight lean north west. Old pruning wounds. Bark damage. Tight union. Partially included bark. Bleeds	Old pruning wounds. Minor deadwood	Large exposed roots. Tight unions, partially included bark and rubbing stems at 0.5m to 1.5m. Bulges, bleeds and minor decay to stems Large low north western limb extends significantly to north west.	Fair	Fair	10 to 20 yrs	Moderate	C	Removal required to facilitate development
T35	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	15	1	180	No	7	2.5	3	2.5	2.5	Soil compaction	Single stemmed. Vertical. Old pruning wounds	Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T36	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	8	6	80	No	1	3.5	3.5	1.5	3	Soil compaction	Multiple stemmed at base. Vertical. Epicormic growths. Stubs. Old pruning wounds. Tight unions. Rubbing stems	Minor deadwood		Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition							Value		Management	
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T37	Field Maple	<i>Acer campestre</i>	Semi-mature	14	3	140, 240, 190	No	1.5	5	0.5	4.5	4.5	Soil compaction. Exposed roots. Bark damage	Multiple stemmed at 1m. Slight lean north west. Bark damage. Tight unions. Partially included bark	Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T38	Rowan	<i>Sorbus sp.</i>	Semi-mature	5.5	2	100, 60	No	1.5	0.5	6	1.5	1.5	Soil compaction	Twin stemmed at 1m. Significant lean south east. Old pruning wounds. Bark damage. Tight unions. Minor cavities. Minor decay	Moderate dieback. Minor deadwood		Fair	Fair	10 to 20 yrs	Low	C	No works required
T39	Birch	<i>Betula pendula</i>	Early-mature	20	1	360	No	4	3	3	5.5	2.5	Soil compaction. Girdled roots. Bark damage. Exposed roots	Single stemmed. Slight lean south east. Old pruning wounds	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	B	Removal required to facilitate development
T40	Sweet Chestnut	<i>Castanea sativa</i>	Semi-mature	18	2	140, 210	No	6	1	0.5	2.5	9	Soil compaction	Twin stemmed at 0.5m. Slight lean south west. Tight unions. Partially included bark. Bark damage	Minor deadwood. Minor dieback		Fair	Fair	10 to 20 yrs	Low	C	Removal required to facilitate development

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T41	Plum	<i>Prunus sp.</i>	Young	8	2	100, 70	No	2	1.5	3.5	2	3	Soil compaction	Twin stemmed at 1m. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor deadwood. Minor dieback		Fair	Fair	10 to 20 yrs	Low	C	No works required
T42	Sycamore	<i>Acer pseudoplatanus</i>	Early-mature	20	1	400	Yes	5	3	5.5	5.5	3	Limited access around base. Soil compaction	Single stemmed. Vertical	Minor deadwood	Adjacent. No access.	Good	Good	>40 yrs	Moderate	B	No works required
G43	Field Maple. Sycamore. Hawthorn. Elder. Holly.	<i>Acer sp.</i> <i>Crataegus sp.</i> <i>Sambucus sp.</i> <i>Ilex sp.</i>	Semi-mature	6	10	70	Yes	0.5	See plan				No visual defects	Tight unions. Partially included bark. Bark damage. Minor cavities. Minor decay. Old pruning wounds	Old pruning wounds. Minor deadwood. Minor dieback	Linear young to semi mature boundary group	Fair	Fair	20 to 40 yrs	Moderate	C	Pruning works required to facilitate development - Reduce crowns from north west to provide adequate clearance from proposed new AGP fence
T44	Field Maple	<i>Acer campestre</i>	Early-mature	14	1	350	No	3	6	5	2	4	Soil compaction. Exposed roots. Bark damage	Single stemmed. Slight lean south east. Epicormic growths	Minor deadwood	Situated up against fence	Good	Good	>40 yrs	Moderate	B	Pruning works required to facilitate development - Reduce crown from north west to provide adequate clearance from proposed new AGP fence

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Average Height (m)	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T45	Field Maple	<i>Acer campestre</i>	Early-mature	13	1	300	No	2	2.5	4	4.5	4.5	Soil compaction	Single stemmed. Vertical. Epicormic growths	Minor deadwood	Situated up against fence	Good	Good	20 to 40 yrs	Moderate	C	Pruning works required to facilitate development - Reduce crown from north west to provide adequate clearance from proposed new AGP fence
T46	Field Maple	<i>Acer campestre</i>	Early-mature	14	1	350	No	2.5	5	5	5	5	Soil compaction	Single stemmed. Vertical. Ivy covered	Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required



**AWA**  
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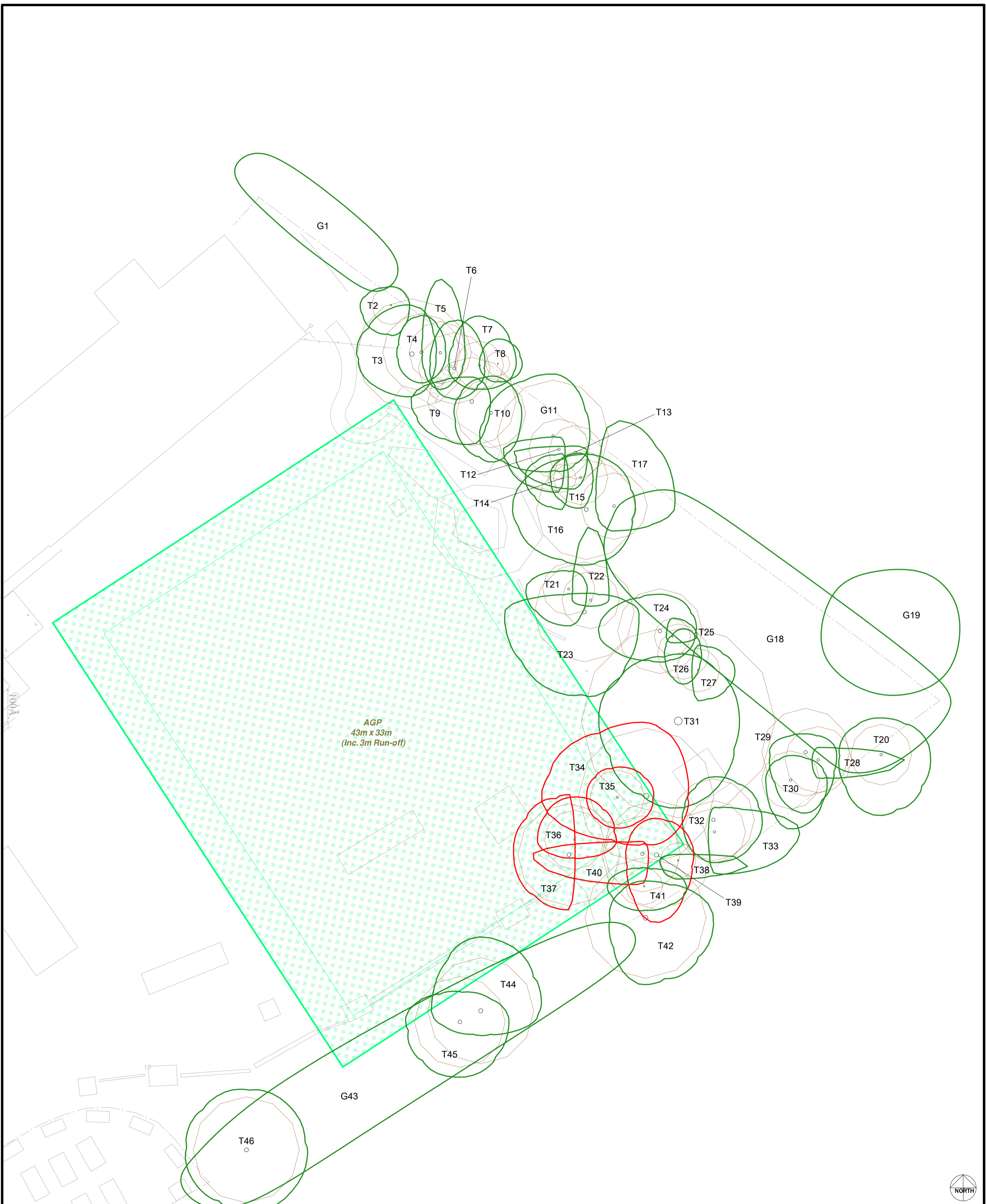
**Appendix 5:  
Tree Constraints Plan**

Birkwood Primary School, Darfield Road, Cudworth, Bamsley  
Ref: AWA5533

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

SCALE: 1:200      PAPER: A2

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




  
 TREE CONSULTANTS

**Appendix 6:  
Tree Impacts Plan**

Birkwood Primary School, Darfield Road, Cudworth, Barnsley  
 Ref: AWA5533

BRITISH STANDARD 5837:2012  
 SCALE: 1:200 PAPER: A2

	TREE/ TREE GROUP/ HEDGE TO BE RETAINED
	TREE/ TREE GROUP/ HEDGE TO BE REMOVED
	RPA: ROOT PROTECTION AREA
	TREE STEM