

Tree Survey

in accordance with

BS5837:2005

at

**Willowgarth School
Barnsley**



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1 Summary

This survey includes all tree within twelve times the stem diameter of the site as defined in BS5837:2005.

The tree cover on this site is of moderate to low importance to the local tree-scape when considered as a whole.

There were no trees of high importance within school grounds. However, there were several trees and groups of trees which were of moderate importance, where these are in adequate condition to be retained they have been allocated a category B.

Trees allocated a category C or a category R are not normally considered as a constraint to development when considered as individuals.

The areas containing trees G29, T30, G32, G33, G49 and T50 could not be accessed at the time of survey and best estimates were made on the size and condition of trees in this area.



2 Introduction

2.1 Purpose of report

To undertake a tree survey in accordance with British Standard 5837:2005 'Trees in relation to construction – Recommendations' at: Willowgarth School, Barnsley.

2.2 Limitations of report

The recommendations in this report are of a preliminary nature and do not take into account any specific development proposals. This allows the trees to be assessed independently and without bias. It also allows the same tree report to be used should the layout or design of the site be altered.

This report is based upon a visual survey undertaken on foot from ground level. In order to minimise costs no digging, drilling, climbing, or other diagnostic technique was undertaken on this occasion.

Though tree related hazards will be recorded and commented upon where observed, this report is not a tree hazard risk assessment and should not be used as such.

2.3 Disclaimers

The consultant shall not be responsible for events which happen after the date of survey due to factors which were not apparent at the time of the survey.

The plans included as part of this report are based on those provided by the client or their representatives. Whilst reasonable steps are taken to ensure plans are accurate and correct, the consultant will not be responsible for errors or omissions arising due to information provided by the client or the client's representatives.

2.3 General recommendations

For the management of risk from falling trees it is advisable to have trees regularly surveyed by a suitably qualified and experienced arborist. The frequency, level and type of survey will vary from site to site depending on a range of factors. We are happy to assist in this if required.

All tree works should be carried out to BS 3998:2010 - Recommendations for tree work by a suitably qualified, experienced and insured contractor.

2.4 Survey conditions

The survey was carried out on 19th April 2011 by James Royston.

The weather conditions; fine, visibility was good.



3 Data collection methods

3.1 Methodology and data table key

Tree height is calculated in metres from ground level to the highest point of the tree using a distance measure (ie a tape measure, a laser measure or measuring wheel depending on site conditions) and a clinometer.

Stem diameter is measured and rounded down to the nearest ten millimetres at 1.5m above ground level using a specialist measuring tape. Where a tree divides into multiple stems below 1.5m it will be measured at the lowest point above the root flare. The data tables show whether a tree is single or multi-stem.

Canopy spread is measured in metres at magnetic north, south, east and west using a tape measure, a measuring wheel or a laser measure. Measurements are taken from the tree stem at ground level to the furthest extent of the crown in the direction being measured.

Height of crown clearance is estimated in metres and is an indication of the lowest significant live branches of the crown. Epicormic growth and small diameter suppressed branches would not normally be considered as significant.

Age Class is divided into young, semi-mature, early-mature, mature, over mature, and veteran. This is an indication of which stage a tree is at in its natural life cycle, allowing for an assessment of how energy and growth will be prioritised within a tree. In general, younger trees are more able to cope with disturbance or stress.

Physiological condition is an assessment of the health and vigour of the tree and will include an assessment of the size, colour and density of the foliage. Trees in good physiological condition are better able to cope with disturbance or stress.

Structural condition is an indication of the structural integrity of the tree. This is given as good, average or poor. More details will be given in the observations column of the data tables if appropriate.

The observations column will include a brief description of each tree and provide further information as relevant.

Visual importance is assessed using a combination of factors such as species, size, aesthetic quality and location. The visual importance of a tree (or group of trees) is one of the key factors in determining its category grading.

The remaining contribution is a rough estimate of the number of years a tree is expected to survive in a structurally sound condition assuming normal arboricultural management.

Occasionally it is impractical to obtain accurate measurements due to restricted access or other site conditions and the data may be estimated. Where data is estimated the figures are shown in italics in the attached data tables.



3.2 *Category Rating*

3.2.1 Main Categories

Category ratings are allocated based on the current quality and value of a tree in its current surroundings assuming the recommendations of this report are carried out. No consideration is given to any specific development proposal when allocating category ratings.

Category A trees are those which are of high quality and value, are in good structural and physiological condition and are expected to contribute for at least another 40 years.

Category B trees are those which would be considered as category A trees but which are of lower quality and value, poorer structural condition, and which are expected to contribute for at least 20 years.

Category C trees are those which are of low quality and value, are in poor condition, and are expected to contribute for at least 10 years.

Category R trees are those which are expected to contribute for less than 10 years due to serious defects. As is common in risk management, where there is doubt, the precautionary principle may be applied.

In certain circumstances trees may be considered of higher value due to cultural or ecological reasons. If this is the case it will be made clear in the tree data tables.

3.2.2 Sub-categories

Sub- categories of 1, 2 or 3 are included in the tree data tables and are defined as follows:

Sub-category 1 trees are those with 'other arboricultural value'

Sub-category 2 trees are those with 'landscape value'

Sub-category 3 trees are those with 'cultural or conservation value'

These subcategories do not infer any hierarchy of value. For example a category B1 tree should not necessarily be considered any more valuable than a category B3 tree.



5 Legal status of surveyed trees

In order to both reduce costs and to ensure timely completion, no check has been made by this consultant with either the local planning authority or the Forestry Commission.

We recommend that the local planning authority is contacted to check whether the trees on this site are protected by a Tree Preservation Order or are within a Conservation Area.

We also recommend that the local Forestry Commission conservancy is contacted to check whether the trees surveyed are protected under the Forestry Act.

Trees may also be subject to legal protection under a range of other legislation, much of which is aimed at wildlife and habitat protection.

No work should be done to any trees until either suitable permission has been granted or it has been verified that the intended work does not require permission.

We are happy to assist in establishing whether trees on this site are protected by a Tree Preservation Order or a Conservation Area designation if required.



6 Contact Details

I hope this report provides all the required information. However, if further advice is needed then please contact me and I will be happy to help.

James Royston – Independent Arboricultural Consultant

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Report completed 22nd April 2011



Appendix 1: Data Tables

Key:

Tree number Refers to the tree number as shown on the attached plans.

Common name Is the English name given to a species.

Scientific name Also known as the botanical name often is in Latin but can contain elements of other languages. The botanical authority who named the species is not included.

Height is tree height in metres.

Diameter is stem diameter rounded down to the nearest 10mm.

Branch spread is the distance from the base of the tree to the extremities of the crown in the four cardinal directions of the magnetic compass.

Height of crown clearance is estimated in metres and is an indication of the lowest significant live branches of the crown.

Age class is an indication of which stage a tree is at in its natural life cycle.

Physiological condition is an assessment of the health and vigour of the tree.

Structural condition is an indication of the structural integrity of the tree.

The observations column includes a brief description of each tree and provide further information as relevant.

Preliminary management recommendations includes suggestions on tree management when considering current site use and current tree condition.

Visual importance is an indication of the visual value of the tree in its current setting.

Remaining contribution is a rough estimate of the number of years a tree is expected to survive in a structurally sound condition assuming normal arboricultural management.

Category grading is given as A, B, C or R with subcategories 1, 2 or 3. See Section 3.2 for further details.

Note: Occasionally it is impractical to obtain accurate measurements due to restricted access or other site conditions and the data/measurements may be estimated.



Tree Number	Common Name	Botanical Name	Height (m)	Diameter (mm)	Branch spread (m)				Crown Clearance (m)	Age class	Physiological condition	Structural condition	Observations	Recommendations	Visual Amenity Value	Remaining contribution (years)	Category grading
					North	East	South	West									
1	Lombardy poplar	<i>Populus nigra 'Italica'</i>	17	410	-	-	-	-	1	Semi mature	Fair	Fair	A line of single stem and multi-stem trees. Not significant trees.	Remove all dead, defective, dying or dangerous branches	Medium	20+	B2
2	Lime	<i>Tilia sp.</i>	16	500	6.3	6.4	5.4	5.4	2	Semi mature	Fair	Fair	A single stem tree with a multi-stem crown. No obvious major visible defects.	No action at present	Low	20+	C2
3	Kanzan cherry	<i>Prunus 'Kanzan'</i>	7	430	3.7	6.9	6.1	4.2	2	Semi mature	Fair	Fair	A single stem tree with a multi-stem crown with tight unions and partially included bark.	No action at present	Low	10+	C2
4	Kanzan cherry	<i>Prunus 'Kanzan'</i>	6	440	5.9	6.6	5.1	2.1	2	Semi mature	Fair	Poor	A single stem tree with a multi-stem crown with tight unions and included bark. A possible hazardous tree.	Fell	Low	<10	R
5	Purple plum	<i>Prunus cerasifera 'Pissardii'</i>	5	650	2.4	2.6	4.1	3.6	0	Young	Fair	Fair	A multi-stem tree with no obvious major visible defects. Not a significant tree.	No action at present	Low	10+	C2
6	Kanzan cherry	<i>Prunus 'Kanzan'</i>	5	440	5.9	8.4	4.6	2.6	2	Early mature	Fair	Fair	A single stem tree with a multi-stem crown with tight unions but no obvious major visible defects.	No action at present	Low	20+	C2
7	Purple plum	<i>Prunus 'Kanzan'</i>	5	310	2.8	3.8	4.4	2.4	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
8	Sycamore	<i>Acer pseudoplatanus</i>	13	420	4.6	4.6	4.8	4.7	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
9	Thorn	<i>Crataegus sp.</i>	5	420	3.1	3.9	5.1	3.2	3	Semi mature	Fair	Fair	A single stem leaning tree with no obvious major visible defects.	No action at present	Low	10+	C2
10	Kanzan cherry	<i>Prunus 'Kanzan'</i>	5	440	3.3	6.0	3.1	3.8	1	Early mature	Fair	Fair	A single stem tree with a multi-stem crown with tight unions.	No action at present	Low	10+	C2
11	Thorn	<i>Crataegus sp.</i>	4	330	3.2	3.1	3.0	2.5	1	Semi mature	Fair	Fair	A single stem leaning tree. Not a significant tree.	No action at present	Low	10+	C2
12	Thorn	<i>Crataegus sp.</i>	5	210	2.1	2.6	3.6	2.6	1	Semi mature	Fair	Fair	A single stem tree. Not a significant tree.	No action at present	Low	10+	C2

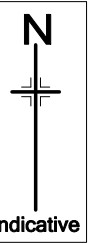
Tree Number	Common Name	Botanical Name	Height (m)	Diameter (mm)	Branch spread (m)				Crown Clearance (m)	Age class	Physiological condition	Structural condition	Observations	Recommendations	Visual Amenity Value	Remaining contribution (years)	Category grading
					North	East	South	West									
13	Thorn	<i>Crataegus sp.</i>	5	270	3.8	3.6	3.6	3.2	2	Semi mature	Fair	Fair	A single stem tree. Not a significant tree.	No action at present	Low	10+	C2
14	Thorn	<i>Crataegus sp.</i>	5	280	2.9	3.6	4.2	1.8	1	Semi mature	Fair	Fair	A single stem tree. Not a significant tree.	No action at present	Low	10+	C2
15	Cherry	<i>Prunus sp.</i>	4	140	2.0	1.9	2.0	1.8	1	Young	Fair	Fair	A single stem tree with a multi-stem crown.	No action at present	Low	10+	C2
16	Cherry	<i>Prunus sp.</i>	5	210	2.3	3.4	3.3	1.9	2	Young	Fair	Fair	A single stem tree with a multi-stem crown.	No action at present	Low	10+	C2
17	Cherry	<i>Prunus sp.</i>	5	200	2.4	2.1	3.3	2.4	2	Young	Fair	Fair	A single stem tree with a multi-stem crown.	No action at present	Low	10+	C2
18	Purple plum	<i>Prunus cerasifera 'Pissardii'</i>	11	350	4.0	3.7	3.4	3.6	2	Semi mature	Fair	Fair	A single stem tree with a multi-stem crown with tight unions. No obvious major visible defects.	No action at present	Low	10+	C2
19	Cherry	<i>Prunus sp.</i>	5	190	2.5	1.7	1.9	1.6	2	Young	Fair	Fair	A single stem tree with a multi-stem crown.	No action at present	Low	10+	C2
20	Mix	Mix	5	170	-	-	-	-	2	Young	Fair	Fair	An area of single stem trees. No obvious major visible defects. Not significant trees.	No action at present	Low	20+	C2
21	Purple plum	<i>Prunus cerasifera 'Pissardii'</i>	7	270	-	-	-	-	2	Semi mature	Fair	Fair	A group of three trees. No obvious major visible defects. Not significant trees.	No action at present	Low	10+	C2
22	Himalayan birch	<i>Betula sp.</i>	6	130	1.6	1.8	1.8	1.7	2	Young	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	10+	C2
23	Weeping willow	<i>Salix sepulcralis 'Chrysocoma'</i>	15	450	5.1	4.7	8.0	3.6	2	Semi mature	Fair	Fair	A single stem tree with a multi-stem crown. No obvious major visible defects.	No action at present	Medium	20+	B2
24	Weeping willow	<i>Salix sepulcralis 'Chrysocoma'</i>	18	640	7.7	6.5	8.2	5.6	2	Semi mature	Fair	Fair	A single stem tree with a multi-stem crown. No obvious major visible defects.	No action at present	Medium	20+	B2

Tree Number	Common Name	Botanical Name	Height (m)	Diameter (mm)	Branch spread (m)				Crown Clearance (m)	Age class	Physiological condition	Structural condition	Observations	Recommendations	Visual Amenity Value	Remaining contribution (years)	Category grading
					North	East	South	West									
25	Sycamore	<i>Acer pseudoplatanus</i>	15	500	-	-	5.3	-	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects. Not fully inspected due to restricted access.	No action at present	Low	20+	C2
26	Sycamore	<i>Acer pseudoplatanus</i>	16	700	-	-	5.4	-	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects. Not fully inspected due to restricted access.	No action at present	Low	20+	C2
27	Sycamore and hybrid poplar	<i>Acer pseudoplatanus</i> and <i>Populus sp.</i>	18	560	-	-	-	-	2	Early mature	Fair	Fair	An area of single stem trees with no obvious major visible defects.	No action at present	Medium	20+	B2
28	Mix	<i>Mix</i>	6	160	-	-	-	-	2	Young	Fair	Fair	An area of single stem trees. No obvious major visible defects. Not significant trees when considered as individuals.	No action at present	Medium	20+	B2
29	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	17	400	-	-	-	-	2	Semi mature	Fair	Fair	A group of single stem and multi-stem trees. Not fully inspected due to restricted access.	No action at present	Low	20+	C2
30	Weeping willow	<i>Salix sepulcralis</i> 'Chrysocoma'	16	450	5.8	5.0	6.2	5.5	1	Semi mature	Fair	Fair	A single stem tree with no obvious major visible defects. Not fully inspected due to restricted access.	No action at present	Medium	20+	B2
31	Hybrid poplar	<i>Populus sp.</i>	19	650	-	-	-	-	2	Early mature	Fair	Fair	A row of single stem and multi-stem trees. With some dead wood and some bark wounds. Not fully inspected due to restricted access.	Remove all dead, defective, dying or dangerous branches and trees.	Medium	20+	B2
32	Mix	<i>Mix</i>	12	250	-	-	-	-	0	Young	Fair	Fair	An area of young trees. Not fully inspected due to restricted access.	No action at present	Low	20+	C2
33	Mix	<i>Mix</i>	12	250	-	-	-	-	0	Young	Fair	Fair	An area of young trees. Not fully inspected due to restricted access.	No action at present	Low	20+	C2
34	Sycamore	<i>Acer pseudoplatanus</i>	14	390	5.7	6.2	6.7	6.5	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Medium	20+	B2
35	Beech	<i>Fagus sylvatica</i>	12	420	4.1	5.9	5.6	7.1	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
36	Rowan	<i>Sorbus aucuparia</i>	7	270	3.9	3.2	3.1	2.6	2	Young	Fair	Fair	Single stem tree with no obvious major visible defects. Not a significant tree.	No action at present	Low	10+	C2







Tree Number	Common Name	Botanical Name	Height (m)	Diameter (mm)	Branch spread (m)				Crown Clearance (m)	Age class	Physiological condition	Structural condition	Observations	Recommendations	Visual Amenity Value	Remaining contribution (years)	Category grading
					North	East	South	West									
37	Horse chestnut	<i>Aesculus hippocastanum</i>	8	390	2.2	3.2	4.3	4.6	2	Young	Fair	Fair	A single stem tree with no obvious major visible defects other than a minor infection of bleeding canker. Not a significant tree.	No action at present	Low	20+	C2
38	Hybrid poplar	<i>Populus sp.</i>	18	690	9.1	8.4	6.2	6.9	2	Early mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
39	Rowan	<i>Sorbus aucuparia</i>	5	230	2.9	2.4	3.1	2.6	1	Young	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
40	Lime	<i>Tilia sp.</i>	8	300	3.9	3.2	3.8	3.2	2	Young	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
41	Ash	<i>Fraxinus excelsior</i>	9	310	5.1	3.7	5.4	4.3	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
42	Ash	<i>Fraxinus excelsior</i>	8	260	4.5	3.5	5.8	3.3	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
43	Hybrid poplar	<i>Populus sp.</i>	19	730	6.8	8.5	10.2	8.6	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
44	Mix	<i>Mix</i>	7	100	-	-	-	-	2	Young	Fair	Fair	Area of single stem trees. No obvious major visible defects. Not significant trees.	No action at present	Low	20+	C2
45	Sycamore	<i>Acer pseudoplatanus</i>	10	370	5.3	3.2	4.5	4.7	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	10+	C2
46	Ash	<i>Fraxinus excelsior</i>	9	380	3.9	4.8	5.7	5.0	2	Semi mature	Fair	Fair	Single stem tree with no obvious major visible defects.	No action at present	Low	20+	C2
47	Mix	<i>Mix</i>	3	-	-	-	-	-	0	Young	Fair	Fair	An informal hedge of mostly field maple.	No action at present	Low	10+	C2
48	Hybrid poplar	<i>Populus sp.</i>	16	730	4.4	6.6	6.1	5.4	2	Semi mature	Fair	Fair	A twin stem tree with a tight union with partially included bark.	No action at present	Low	10+	C2

Appendix 2: Plans

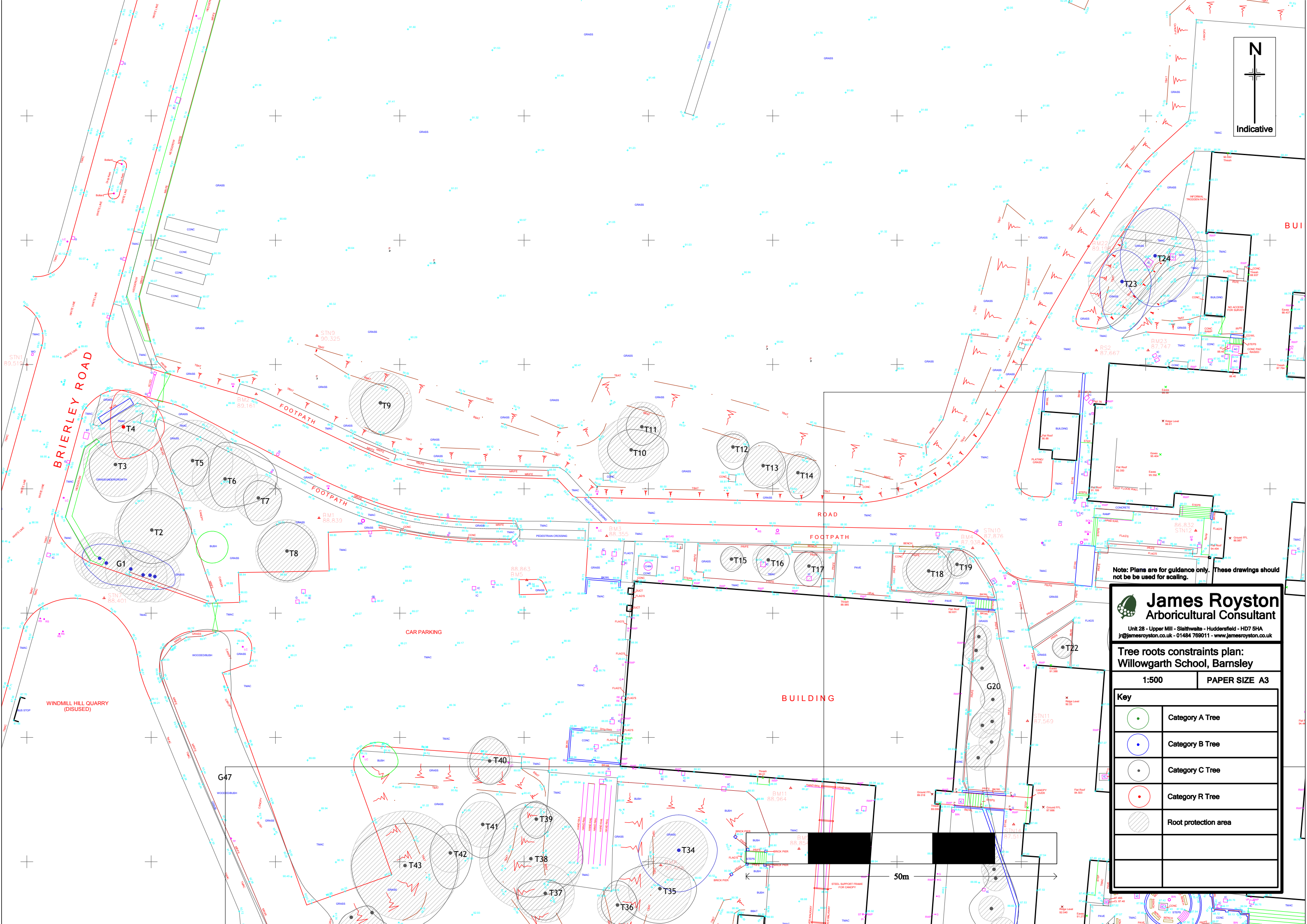




Note: Plans are for guidance only. These drawings should not be used for scaling.

 James Royston Arboricultural Consultant	
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Tree roots constraints plan: Willowgarth School, Barnsley	
1:1000	PAPER SIZE A3
Key	
	Category A Tree
	Category B Tree
	Category C Tree
	Category R Tree
	Root protection area

100m



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James Royston
Arboricultural Consultant

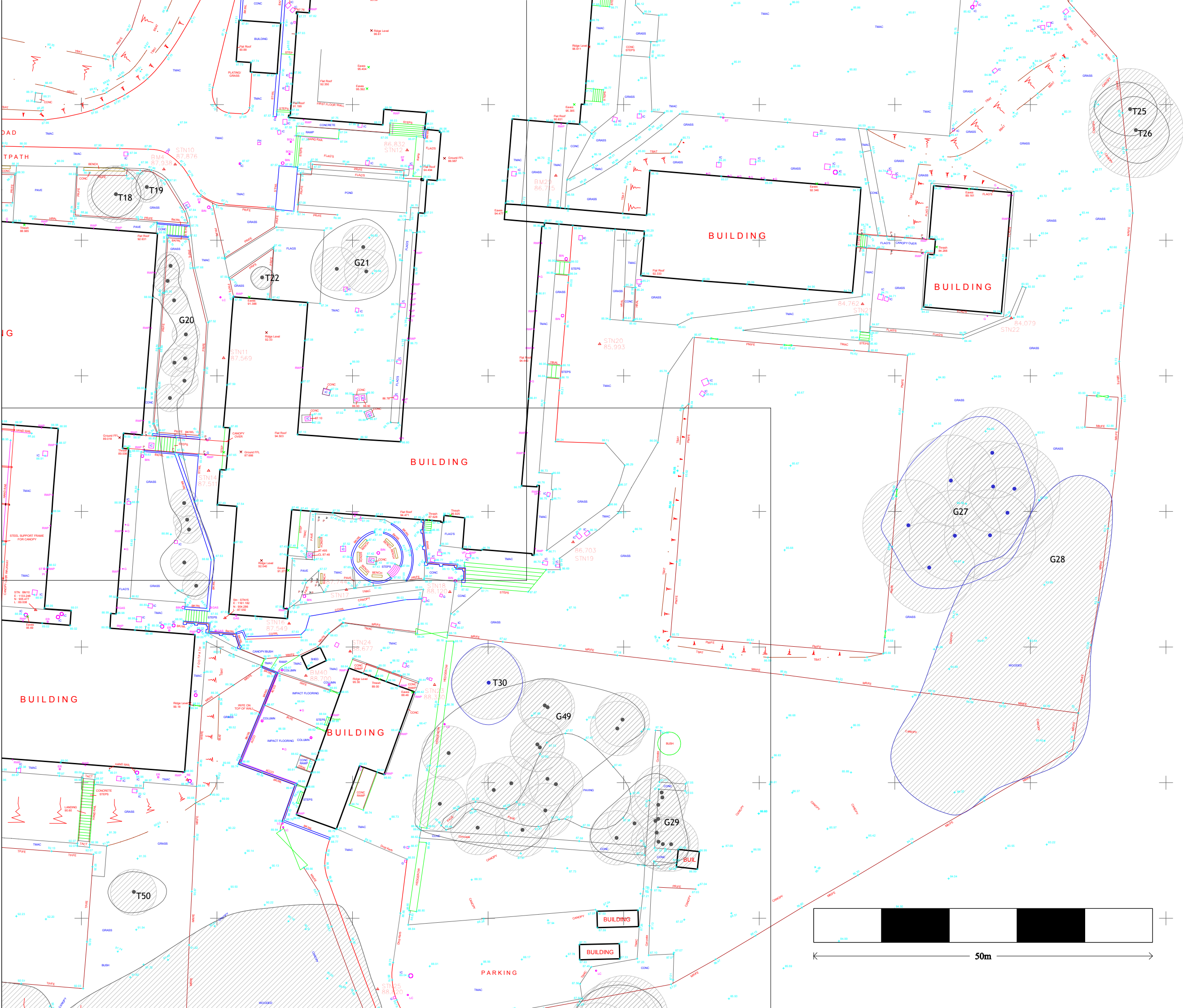
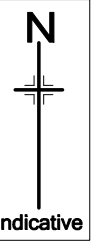
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Tree roots constraints plan:
Willowgarth School, Barnsley

1:500 PAPER SIZE A3

Key	
	Category A Tree
	Category B Tree
	Category C Tree
	Category R Tree
	Root protection area

50m



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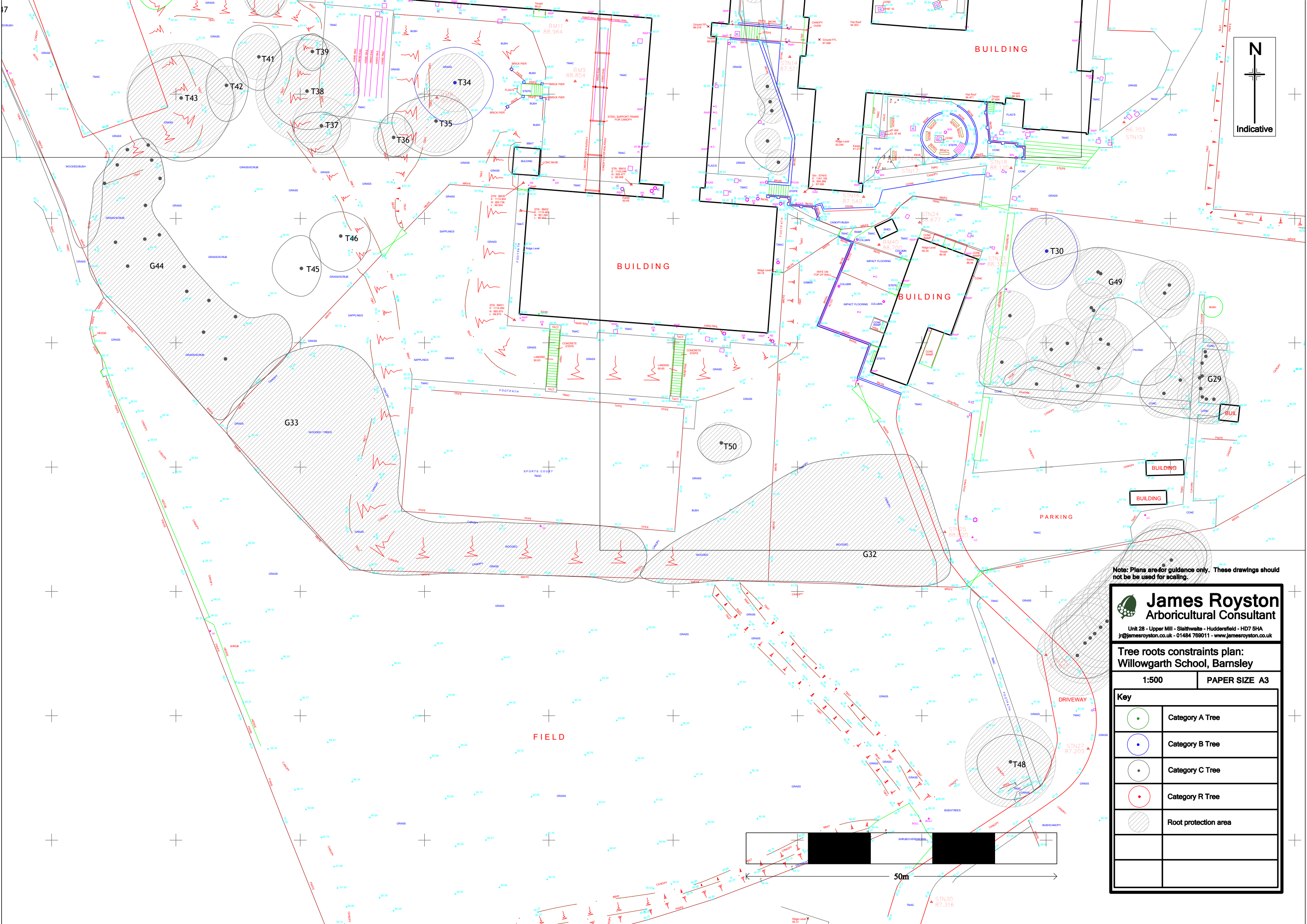
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**Tree roots constraints plan:
Willowgarth School, Barnsley**

1:500 PAPER SIZE A3

Key	
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	Category B Tree
	Category C Tree
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	Root protection area



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Tree roots constraints plan:
Willowgarth School, Barnsley

1:500 PAPER SIZE A3

Key	
	Category A Tree
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	Root protection area