



Arboricultural Survey to BS5837:2012

Arcadis LLP.

**Newhall Green High School,
Greenbrow Road,
Wythenshawe,
Greater Manchester,
M23 2SX.**

16 June 2022

Alan Thompson FdSc (Arb) MArborA

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Cardiff,
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16/06/22

Tree Survey Report to BS5837 Newhall Green High School, Wythenshawe, M23 2SX.

Arbtech Consulting Limited (Arbtech) received written instruction in May 2022 from Rena Lyn Marasigan of Arcadis LLP to attend Newhall Green High School, Greenbrow Road, Wythenshawe, Greater Manchester, M23 2SX (site) to undertake an arboricultural survey to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of trees and Tree Constraints Plan.

Our arboricultural consultant, Mr. Alan Thompson undertook the survey on the 7th & 8th June 2022; weather conditions were warm, dry and bright on both days. Subsequently we have produced this summary of our findings. Mr. Alan Thompson FdSc has over 13 years arboricultural experience in both local authority and private practice environments and also holds the LANTRA Professional Tree Inspection certificate.

The advice below and appended is underwritten by our Professional Indemnity insurance for the business practice of Arboricultural Consultancy in the sum of one million Pounds Sterling in each and every claim.

Tree Survey Executive Summary

A total of 60 No. individual trees, 7 No. hedges and 31 No. grouped areas of trees were surveyed.

During the survey I categorised the group of trees using "Table 1 – Cascade chart for tree quality assessment" of the BS5837:2012.

The majority of the trees surveyed were in an acceptable or good condition at the time of the survey. However, trees T15, T26, T52 & T53 are all in terminal decline, and tree T16 is a standing dead tree. G29 is comprised of young and early mature trees, all of which are in an advanced state of decline.

Individual notes on the tree's structural and physiological condition are found in the Notes section of the survey schedule.

Figure 1: Redline boundary for survey



Individual notes on each tree's structural and physiological condition are found in the Notes section of the survey schedule.

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BS5837:2012 Scope

This standard recognises that there can be problems for development close to existing trees which are to be retained, and of planting trees close to existing structures. This standard sets out to assist those concerned with trees in relation to construction to form balanced judgements. It does not set out to put arguments for or against development, or for the removal or retention of trees. Where development, including demolition, is to occur, the standard provides guidance on how to decide which trees are appropriate for retention, on the means of protecting these trees during development, including demolition and construction work, and on the means of incorporating trees into the developed landscape.

Definitions

Arboriculturist

An arboriculturist (or arboricultural consultant) is a person who has, through relevant education, training and experience, gained recognized qualifications and expertise in the field of trees in relation to construction.

Tree Survey

A tree survey should be undertaken by an arboriculturist and should record information about the trees on a site independently of and prior to any specific design for development. As a subsequent task, and with reference to a design or potential design, the results of the survey should be included in the preparation of a tree constraints plan, which should be used to assist with site layout design.

Tree Constraints Plan

A TCP is plan, typically delivered as an AutoCAD drawing (.dxf file format), prepared by an arboriculturist for the purposes of layout design showing the root protection area and representing the effect that the mature height and spread of retained trees will have on layouts through shade, dominance, etc.

Root Protection Area

An RPA is a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m².

Construction Exclusion Zone (also termed Tree Protection Zone)

A construction exclusion or tree protection zone is an area based on the RPA (in m²), identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

Arboricultural Impact Assessment

This is a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Tree Protection Plan

A TPP is plan, typically delivered as an AutoCAD drawing (.dwg file format), prepared by an arboriculturist showing the finalized layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement, which can be shown graphically.

Arboricultural Method Statement

This is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. The AMS is likely to include details of an on-site tree protection monitoring regime.

Methodology

The methodology used to assess the trees was the British Standard 5837:2012 'Trees in Relation to Construction' tree survey method. The aim of the survey is to establish which trees are moderate and good quality; suitable for retention and justifying protection. And, which trees are low or poor quality; either undesirable or unsuitable to retain and protect.

The tree survey includes all trees included in the land survey red line boundary plan, as well as any that may have been missed, and it should categorize trees or groups of trees, including woodlands for their quality and value within the existing context, in a transparent, understandable and systematic way. Where the arboriculturist has deemed it appropriate, the trees have been tagged with small metal or plastic tags, placed as high as is convenient on the stem of each tree.

Whilst master plan proposals for the development of the site might be available, the trees have been surveyed without taking these into consideration. All detailed design work on site layout should take into consideration the results of the tree survey (and the TCP).

Trees forming groups and areas of woodland (including orchards, wood pasture and historic parkland) are identified and considered as groups where the arboriculturist has determined that this is appropriate, particularly where they contain a variety of species and age classes that could aid long-term management. It is often expedient to assess the quality and value of such groups of trees as a whole, rather than as individuals. However, an assessment of individuals within any group has been undertaken if they are open-grown or if there is a need to differentiate between them.

The quality and value of each tree or group of trees has been recorded by allocating it to one of the four categories; **A**, **B**, **C**, or **U** (highest to lowest quality respectively). The categories are differentiated on the tree survey plan by colour, or by suffixing the category adjacent to the tree identification number on the TCP.

The survey schedule lists all the trees or groups of trees. The following information is also provided:

- I. reference number (to be recorded on the tree survey plan);
- II. species (common or scientific names);
- III. height in metres (m);
- IV. stem diameter in millimetres (mm) at 1.5 m above adjacent ground level or immediately above the root flare for multi-stemmed trees;
- V. branch spread in metres taken at the four cardinal compass points;
- VI. height of crown clearance above adjacent ground level in metres (m);
- VII. age class (Newly planted, Young, Semi-mature, Early mature, Mature, Over mature);
- VIII. physiological condition (e.g. good, fair, poor, decline and dead);
- IX. structural condition (e.g. good, fair, poor and ivy);
- X. preliminary management recommendations, including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat; and
- XI. The retention category referring to the quality and useful contribution in years; **U** = <10yrs; **A** = >40yrs; **B** = >20yrs; **C** = >10yrs. The retention sub category referring to the type of amenity; 1 = Arboricultural; 2 = Landscape; 3 = Cultural including conservation (see Table 1 Cascade chart for tree quality assessment).

BS5837:2012 Trees in relation to design, demolition and construction – Recommendations

Table 1

Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories when appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7.</i>			Dark red
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominate and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light green
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial defects, including unsympathetic management and storm damage), such that they are unlikely to be suitable for retention of beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Mid blue
Category C Trees of low quality with an estimated remaining expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape value	Trees with no material conservation or other cultural value	Grey

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Limitations

Trees were inspected from using visual observation from ground level only. Trees were not climbed or inspected below ground level. Inaccessible trees will have best estimates made about the location, physical dimensions and characteristics. Trees have been grouped where BS5837 guides us that it is expedient to do so. Trees have been excluded from the survey if they are found by us to be sufficiently far away from the proposed developable area or if they are outside of the red line boundary plan showing the expectations of our Client for the extent of the survey. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

Appendices

The following documents were released to the Client as appendices to this report below:

- Survey Schedule (PDF)
- Tree Constraints Plan drawing (DWG & PDF)

If you require clarification of information contained herein, please do not hesitate to contact me on 07703 676 216

Yours Sincerely,



Alan Thompson FdSc (Arb.), M.ArborA

Arboricultural Consultant

Appendix 1: Schedule of Trees

BS5837:2012 Tree Survey

Artbech Consulting Ltd.

Client: Arcadis LLP
 Project: Newhall Green High School, Wythenshawe, M23 2SX.
 Survey Date: 07/06/2022 - 08/06/2022
 Surveyor: Alan Thompson



Unit 3, Well House Barns
 Chester Road
 Chester
 Cheshire
 CH4 0DH
 Phone: 01244 66 11 70

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
Estimated Measurements													
G1													
A Group	4.5	1	120	N	2	0.5	Y	A: 6.5	Good	C: Good			C.1
- -				E	2	0.5		R: 1.43		S: Good	Group is comprised of 3 young trees. Species are hornbeam and sycamore. Measurements given are estimated averages for the group. Group of limited amenity value.		>40 yrs
				S	2	0.5				B: Good			
				W	2	0.5							
Estimated Measurements													
G2													
A Group	17	1	380	N	5.5	3.5	SM	A: 65.3	Good	C: Good			B.2
- -				E	5.5	3.5		R: 4.55		S: Good	Group is comprised of three semi mature trees. Species are crack willow and Scots pine. Off site group could not be fully inspected. Measurements given are estimated averages for the group.		>40 yrs
				S	5.5	3.5				B: Good			
				W	5.5	3.5							
Estimated Measurements													
G3													
A Group	4	1	200	N	2.5	1	SM	A: 18.1	Good	C: Good			C.2
- -				E	2.5	1		R: 2.4		S: Good	Off site group is comprised of 6 early mature trees. Species are willow malus and liquidamber. Measurements given are estimated averages for the group.		>40 yrs
				S	2.5	1				B: Good			
				W	2.5	1							
Estimated Measurements													
G4													
A Group	4	1	100	N	2	0.5	Y	A: 4.5	Good	C: Good			C.2
- -				E	2	0.5		R: 1.19		S: Good	Partially lapsed hedgerow is comprised of beech and hawthorn. Measurements given are estimated averages for the group.		>40 yrs
				S	2	0.5				B: Good			
				W	2	0.5							
Estimated Measurements													
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Stems: Ø Diameter													
Y Young M Mature S Stem (Eq) Equivalent stem diameter using BS5837:2012 definition													
SM Semi-mature OM Over Mature B Basal area													

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC			
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment						
G5														Estimated Measurements		
A Group	4	1	100	N	2	1.5	Y	A: 4.5	Good	C: Good	Group is comprised of five young trees. Species are paper birch, jaquemonts birch and silver birch. Measurements given are estimated averages for the group.			C.2		
--				E	2	1.5		R: 1.19		S: Good				>40 yrs		
				S	2	1.5		B: Good								
				W	2	1.5										
G6														Estimated Measurements		
A Group	4	1	100	N	2	1.5	Y	A: 4.5	Good	C: Good	Group is comprised of three young trees. Species are paper birch, jaquemonts birch and silver birch. Measurements given are estimated averages for the group.			C.2		
--				E	2	1.5		R: 1.19		S: Good				>40 yrs		
				S	2	1.5		B: Good								
				W	2	1.5										
G7														Estimated Measurements		
A Group	7	1	280	N	3.5	1	Y	A: 35.5	Good	C: Good	Group is comprised of approximately 12 early mature trees. Species are ash, sycamore, robinia and malus. Group's understory is a lapsed cherry laurel hedge. Measurements given are estimated averages for the group.			B.2		
--				E	3.5	1		R: 3.36		S: Good				>40 yrs		
				S	3.5	1		B: Good								
				W	3.5	1										
G8														Estimated Measurements		
Common Alder	5.5	1	130	N	2	1	Y	A: 7.6	Good	C: Good	Group is comprised of five common alder trees. Measurements given are estimated averages for the group.			C.2		
<i>Alnus glutinosa</i>				E	2	1		R: 1.55		S: Good				>40 yrs		
				S	2	1		B: Good								
				W	2	1										
G9														Estimated Measurements		
A Group	4.5	1	100	N	2	1	Y	A: 4.5	Good	C: Good	Group is comprised of approximately 20 young trees. Species are silver birch, white willow, sycamore, alder and goat willow. Measurements given are estimated averages for the group			C.2		
--				E	2	1		R: 1.19		S: Good				>40 yrs		
				S	2	1		B: Good								
				W	2	1										
G10														Estimated Measurements		
Lombardy Poplar	20	1	500	N	2.5	2	M	A: 113.1	Good	C: Good	Off site group could not be fully inspected due to inaccessible location. Group is comprised of 22 Lombardi poplar trees. Measurements given are estimated averages for the group.			B.1.2		
<i>Populus nigra 'Italica'</i>				E	2.5	2		R: 6		S: Good				20 to 40 yrs		
				S	2.5	2		B: Good								
				W	2.5	2										
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition				

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
G11											Estimated Measurements		
A Group	6	1	180	N	3	1.5	SM	A: 14.7	Good	C: Good			C.2
- -				E	3	1.5		R: 2.16		S: Good	Group is comprised of two semi mature hawthorn and three young self seeded sycamore trees. Group of limited amenity value. Measurements given are estimated averages for the group.		>40 yrs
				S	3	1.5				B: Good			
				W	3	1.5							
G12											Estimated Measurements		
A Group	8.5	1	300	N	6.5	2	SM	A: 40.7	Good	C: Good			B.2
- -				E	6.5	2		R: 3.59		S: Good	Boundary screening group is comprised of approximately 19 early mature trees. Species are sycamore and ash with one wild cherry. Understory is a lapsed hawthorn hedgerow. Measurements given are estimated averages for the group.		>40 yrs
				S	6.5	2				B: Good			
				W	6.5	2							
G13											Estimated Measurements		
A Group	5	1	160	N	3	1.5	Y	A: 11.6	Good	C: Good			C.2
- -				E	3	1.5		R: 1.92		S: Good	Group is comprised of nine early mature goat willow and three young ash trees. Measurements given are estimated averages for the group.		>40 yrs
				S	3	1.5				B: Good			
				W	3	1.5							
G14											Estimated Measurements		
A Group	11.5	1	400	N	5	1.5	SM	A: 72.4	Good	C: Good			B.1.2
- -				E	5	1.5		R: 4.8		S: Good	Linear boundary screening group is comprised of five semi mature trees. Species are ash and oak. Measurements given are estimated averages for the group.		>40 yrs
				S	5	1.5				B: Good			
				W	5	1.5							
G15											Estimated Measurements		
Common Ash	7.5	1	190	N	3.5	2	Y	A: 16.3	Decline	C: Poor			C.2
<i>Fraxinus excelsior</i>				E	3.5	2		R: 2.27		S: Good	Linear boundary screening group is comprised of 22 early mature ash trees. Almost all are infected with the ash dieback fungal pathogen, the reduced life expectancy reflects this. Measurements given are estimated averages for the group		10 to 20 yrs
				S	3.5	2				B: Good			
				W	3.5	2							
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
G16		Estimated Measurements											
A Group	11.5	1	470	N	5.5	2	SM	A: 99.9	Fair	C: Fair			B.2
- -				E	5.5	2		R: 5.63		S: Good	Linear boundary group is comprised of four ash trees and two whitebeam with an understory of hawthorn and ash saplings. The ash are showing early symptoms of ash dieback infection. Measurements given are estimated averages for the group.		20 to 40 yrs
				S	5.5	2				B: Good			
				W	5.5	2							
G17		Estimated Measurements											
A Group	21	1	800	N	5	3.5	M	A: 289.6	Good	C: Good			A.2
- -				E	5	3.5		R: 9.6		S: Good	Group is comprised of two Lombardy poplar trees and one balsam poplar. Measurements given are estimated averages for the group. Group has an understory of young oak, ash and cherry trees.		>40 yrs
				S	5	3.5				B: Good			
				W	5	3.5							
G18		Estimated Measurements											
Lombardy Poplar	22	1	750	N	3.5	3.5	M	A: 254.5	Good	C: Good			A.2
<i>Populus nigra 'Italica'</i>				E	3.5	3.5		R: 9		S: Good	Group is comprised of two mature Lombardy poplar trees. Measurements given are estimated averages for the group. Group's understory is comprised of young oak, hawthorn and elder.		>40 yrs
				S	3.5	3.5				B: Good			
				W	3.5	3.5							
G19		Estimated Measurements											
A Group	20	1	650	N	3.5	2.5	M	A: 191.2	Good	C: Good			A.2
- -				E	3.5	2.5		R: 7.8		S: Good	Group is comprised of one Lombardy poplar and one horse chestnut tree. Measurements given are estimated averages for the group.		>40 yrs
				S	3.5	2.5				B: Good			
				W	3.5	2.5							
G20		Estimated Measurements											
Lombardy Poplar	22.5	1	700	N	3.5	4.5	SM	A: 221.7	Good	C: Good			A.2
<i>Populus nigra 'Italica'</i>				E	3.5	4.5		R: 8.4		S: Good	Group is comprised of three mature Lombardy poplar trees. Measurements given are estimated averages for the group. Understory is comprised of young oak and hawthorn.		>40 yrs
				S	3.5	4.5				B: Good			
				W	3.5	4.5							
G21		Estimated Measurements											
Lombardy Poplar	20	1	600	N	3	3.5	M	A: 162.9	Good	C: Good			A.2
<i>Populus nigra 'Italica'</i>				E	3	3.5		R: 7.2		S: Good	Group is comprised of four Lombardy poplar trees. Measurements given are estimated averages for the group.		>40 yrs
				S	3	3.5				B: Good			
				W	3	3.5							
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
G22											Estimated Measurements		
A Group	20	1	700	N	4	2.5	M	A: 221.7	Good	C: Good			A.2
- -				E	4	2.5		R: 8.4		S: Good	Group us comprised of 4 Lombardy poplar and one hybrid black poplar. Measurements given are estimated averages for the group.	>40 yrs	
				S	4	2.5				B: Good			
				W	4	2.5							
G23											Estimated Measurements		
A Group	3.5	1	80	N	2	0.5	Y	A: 2.9	Good	C: Good			C.2
- -				E	2	0.5		R: 0.96		S: Good	Group is comprised of approximately 50 young trees. Natural regeneration of oak and hawthorn. Measurements given are estimated averages for the group.	>40 yrs	
				S	2	0.5				B: Good			
				W	2	0.5							
G24											Estimated Measurements		
A Group	3.5	1	90	N	2	0.5	Y	A: 3.7	Good	C: Good			C.2
- -				E	2	0.5		R: 1.08		S: Good	Group is comprised of 12 young trees. Natural regeneration of oak and hawthorn. Measurements given are estimated averages for the group.	>40 yrs	
				S	2	0.5				B: Good			
				W	2	0.5							
G25											Estimated Measurements		
Lombardy Poplar	20	1	650	N	3	3.5	M	A: 191.2	Good	C: Good			A.2
<i>Populus nigra 'Italica'</i>				E	3	3.5		R: 7.8		S: Good	Group us comprised of 4 Lombardy poplar and one hybrid black poplar. Measurements given are estimated averages for the group.	>40 yrs	
				S	3	3.5				B: Good			
				W	3	3.5							
G26											Estimated Measurements		
A Group	5	1	180	N	2.5	0.5	Y	A: 14.7	Good	C: Good			C.2
- -				E	2.5	0.5		R: 2.16		S: Good	Linear, boundary screening group is comprised of approximately 50 early mature trees. Species are predominately goat Will interspersed with occasional hawthorn, sycamore and silver birch. Measurements given are estimated averages for the group.	>40 yrs	
				S	2.5	0.5				B: Good			
				W	2.5	0.5							
G27											Estimated Measurements		
A Group	20	1	700	N	4	3.5	M	A: 221.7	Good	C: Good			A.2
- -				E	4	3.5		R: 8.4		S: Good	Group is comprised of two Lombardy poplar and one horse chestnut tree. Measurements given are estimated averages for the group	>40 yrs	
				S	4	3.5				B: Good			
				W	4	3.5							
Age Classifications:	N	Newly planted	EM	Early Mature	Condition:		C	Crown	Stems:		Ø	Diameter	
	Y	Young	M	Mature			S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition	
	SM	Semi-mature	OM	Over Mature			B	Basal area					

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
G28											Estimated Measurements		
Common Oak <i>Quercus robur</i>	6.5	1	300	N	4	2	SM	A: 40.7 R: 3.59	Good	C: Good S: Good B: Good	Group is comprised of four early mature oak trees. Measurements given are estimated averages for the group.		B.2 >40 yrs
G29											Estimated Measurements		
A Group - -	4.5	1	190	N	2.5	2	SM	A: 16.3 R: 2.27	Decline	C: Poor S: Fair B: Good	Group is comprised of 5 hawthorn and two early mature sycamore trees. All seven trees are in advanced decline with approximately 60% dieback observed in crowns. Measurements given are estimated averages for the group.		U <10 yrs
G30											Estimated Measurements		
A Group - -	4	1	120	N	2	1	SM	A: 6.5 R: 1.43	Fair	C: Fair S: Good B: Good	Group is comprised of six semi mature hawthorn. Dieback was observed in trees crowns. Measurements given are estimated averages for the group.		C.2 10 to 20 yrs
G31											Estimated Measurements		
A Group - -	5	1	180	N	2	1	SM	A: 14.7 R: 2.16	Good	C: Good S: Good B: Good	Lapsed hawthorn hedgerow. Measurements given are estimated averages for the group.		C.2 20 to 40 yrs
H1											Estimated Measurements		
A Hedgerow - <i>Unknown</i>	1.5	1	50	N	0.5	0.1	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good	Well maintained hornbeam hedgerow. Measurements given are estimated averages for the hedge.		C.2 >40 yrs
H2											Estimated Measurements		
A Hedgerow - <i>Unknown</i>	1	1	50	N	0.5	0	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good	Well maintained yew hedgerow. Measurements given are estimated averages for the hedge.		C.2 >40 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC	
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment				
H3											Estimated Measurements			
A Hedgerow - <i>Unknown</i>	1.5	1	50	N	0.5	0.1	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good	Well maintained yew hedgerow. Measurements given are estimated averages for the hedge.			C.3 >40 yrs
H4											Estimated Measurements			
A Hedgerow - <i>Unknown</i>	1.5	1	50	N	0.5	0.1	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good	Well maintained yew hedgerow. Measurements given are estimated averages for the hedge.			C >40 yrs
H5											Estimated Measurements			
A Hedgerow - <i>Unknown</i>	1.5	1	50	N	0.5	0.1	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good	Well maintained yew hedgerow. Measurements given are estimated averages for the hedge.			C >40 yrs
H6											Estimated Measurements			
A Hedgerow - <i>Unknown</i>	1.5	1	50	N	0.5	0.1	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good	Well maintained yew hedgerow. Measurements given are estimated averages for the hedge.			C >40 yrs
H7											Estimated Measurements			
A Hedgerow - <i>Unknown</i>	1.5	1	50	N	0.5	0.1	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good	Well maintained yew hedgerow. Measurements given are estimated averages for the hedge.			C >40 yrs
T1														
Common Lime <i>Tilia europaea</i>	16	1	620	N	7	3.5	M	A: 173.9 R: 7.44	Good	C: Good S: Good B: Good				A.1 >40 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition		

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T2													
Common Lime <i>Tilia europaea</i>	14.5	1	560	N E S W	7 5.5 6 6.5	2.5 3.5 3.5 3.5	M 	A: 141.9 R: 6.72	Good	C: Fair S: Good B: Good	Minor deadwood observed in tree's crown.	B.1 >40 yrs	
T3													
Common Hawthorn <i>Crataegus monogyna</i>	6.5	1	360	N E S W	3.5 3.5 3.5 3.5	3.5 3.5 3.5 3.5	M 	A: 58.6 R: 4.31	Fair	C: Fair S: Good B: Good	Apical dieback observed in tree's upper crown.	C.1 10 to 20 yrs	
T4													
Sugar Maple <i>Acer saccharum</i>	11.5	1	430	N E S W	5.5 5 6 4	4.5 4.5 4.5 4.5	SM 	A: 83.7 R: 5.16	Good	C: Good S: Good B: Fair	Basal epicormic growth observed.	B.1 20 to 40 yrs	
T5													
Sycamore <i>Acer pseudoplatanus</i>	12.5	1	530	N E S W	5.5 5.5 5.5 5.5	4.5 4.5 4.5 4.5	M 	A: 127.1 R: 6.36	Good	C: Good S: Good B: Good	Off site street tree growing on grass verge.	B.1 >40 yrs	
T6													
Common Lime <i>Tilia europaea</i>	18	1	560	N E S W	7.5 6.5 6.5 6.5	4 3.5 3.5 4	M 	A: 141.9 R: 6.72		C: Good S: Good B: Good	Off site street tree growing on grass verge.	A.1 >40 yrs	
T7													
Common Lime <i>Tilia europaea</i>	18	1	550	N E S W	6.5 7 6.5 6	3 3 5 4	M 	A: 136.9 R: 6.6	Good	C: Good S: Good B: Good	Off site street tree growing on grass verge. Basal epicormic growth observed.	A.1 >40 yrs	
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T8													
Common Lime <i>Tilia europaea</i>	12.5	1	390	N E S W	4.5 5 4 6.5	4 3.5 4 4.5	SM A: 68.8 R: 4.67	Good	C: Good S: Good B: Good	Off site street tree growing on grass verge. Basal epicormic growth observed.			B.1 >40 yrs
T9													
Common Ash <i>Fraxinus excelsior</i>	11	1	370	N E S W	5.5 5 5 5	3 5.5 3 3	SM A: 61.9 R: 4.43	Decline	C: Poor S: Good B: Good	Ash dieback observed in tree's crown. 20% of crown is dead. Off site street tree growing on grass verge.			C.1 10 to 20 yrs
T10	236												
Red Oak <i>Quercus rubra</i>	15	1	790	N E S W	9.5 10.5 9.5 9.5	5.5 3.5 3.5 5.5	M A: 282.4 R: 9.48	Good	C: Good S: Good B: Good	Tree is growing on a grass verge.			A.1 >40 yrs
T11													
Copper Beech <i>Fagus sylvatica 'Purpurea'</i>	12.5	1	680	N E S W	7 6.5 6.5 6.5	2.5 3 2.5 2.5	SM A: 209.2 R: 8.16	Good	C: Good S: Good B: Good	Tree is growing on grass verge.			B.1 >40 yrs
T12													
Red Oak <i>Quercus rubra</i>	17.5	1	660	N E S W	8.5 9 8.5 9	2.5 4 4 3.5	SM A: 197.1 R: 7.92	Fair	C: Fair S: Good B: Good	Slight apical dieback observed in tree's upper crown.			B.1 20 to 40 yrs
T13													
Red Oak <i>Quercus rubra</i>	17	1	720	N E S W	9 10 9 9.5	4 4 5 4	M A: 234.5 R: 8.63	Fair	C: Fair S: Good B: Good	Tree is growing on grass verge. Slight apical dieback observed in tree's upper crown. Epicormic growth observed in tree's lower limbs.			B.1 20 to 40 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T14											Estimated Measurements		
Common Oak <i>Quercus robur</i>	17	1	800	N	8.5	5	M	A: 289.6 R: 9.6	Good	C: Good S: Good B: Good	Off site tree could not be fully inspected and measurements given are estimated.		A.1 >40 yrs
T15											Estimated Measurements		
Weeping Ash <i>Fraxinus pendula</i>	7.5	1	320	N	3.5	3.5	SM	A: 46.3 R: 3.83	Poor	C: Poor S: Fair B: Good	Advanced ash dieback infection observed throughout tree's crown. Tree is in terminal decline with 70% crown dieback. Off site tree could not be fully inspected and measurements given are estimated.		U <10 yrs
T16											Estimated Measurements		
Common Hawthorn <i>Crataegus monogyna</i>	6	5	445 (Eq)	N	3	2	M	A: 89.4 R: 5.33	Dead	C: Poor S: Poor B: Poor	Standing dead tree. Off site tree could not be fully inspected and measurements given are estimated		U n/a
T17											Estimated Measurements		
Common Ash <i>Fraxinus excelsior</i>	4	1	90	N	1.5	2.5	Y	A: 3.7 R: 1.08	Fair	C: Fair S: Good B: Good	Early symptoms of ash dieback observed in tree's upper crown.		C.1 10 to 20 yrs
T18											Estimated Measurements		
Paper Birch <i>Betula papyrifera</i>	3.5	1	110	N	2	1.5	Y	A: 5.5 R: 1.32	Good	C: Good S: Good B: Good			C.1 >40 yrs
T19											Estimated Measurements		
Common Ash <i>Fraxinus excelsior</i>	4	1	90	N	1.5	2.5	Y	A: 3.7 R: 1.08	Fair	C: Fair S: Good B: Good	Early symptoms of ash dieback observed in tree's upper crown.		C.1 10 to 20 yrs
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Stems: Ø Diameter Y Young M Mature S Stem (Eq) Equivalent stem diameter using BS5837:2012 definition SM Semi-mature OM Over Mature B Basal area													

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T20													
Prunus 'Amanogawa'	6	1	170	N	1.5	2.5	Y	A: 13.1	Good	C: Good	Early mature tree.	C.1 >40 yrs	
Prunus 'Amanogawa'				E	1.5	2.5		R: 2.04		S: Good			
				S	1.5	2.5				B: Good			
				W	1.5	2.5							
T21													
Prunus 'Amanogawa'	6	1	130	N	1.5	2.5	Y	A: 7.6	Good	C: Good	Early mature tree.	C.2 >40 yrs	
Prunus 'Amanogawa'				E	1.5	2.5		R: 1.55		S: Good			
				S	1.5	2.5				B: Good			
				W	1.5	2.5							
T22													
Prunus 'Amanogawa'	6	1	130	N	1.5	2.5	Y	A: 7.6	Good	C: Good	Early mature tree.	C.3 >40 yrs	
Prunus 'Amanogawa'				E	1.5	2.5		R: 1.55		S: Good			
				S	1.5	2.5				B: Good			
				W	1.5	2.5							
T23													
Prunus 'Amanogawa'	6	1	170	N	1.5	2.5	Y	A: 13.1	Good	C: Good	Early mature tree.	C >40 yrs	
Prunus 'Amanogawa'				E	1.5	2.5		R: 2.04		S: Good			
				S	1.5	2.5				B: Good			
				W	1.5	2.5							
T24													
Prunus 'Amanogawa'	6	1	160	N	1.5	2.5	Y	A: 11.6	Good	C: Good	Early mature tree.	C >40 yrs	
Prunus 'Amanogawa'				E	1.5	2.5		R: 1.92		S: Good			
				S	1.5	2.5				B: Good			
				W	1.5	2.5							
T25													
Prunus 'Amanogawa'	6	1	170	N	1.5	2.5	Y	A: 13.1	Good	C: Good	Early mature tree.	C >40 yrs	
Prunus 'Amanogawa'				E	1.5	2.5		R: 2.04		S: Good			
				S	1.5	2.5				B: Good			
				W	1.5	2.5							
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T26													
Common Ash <i>Fraxinus excelsior</i>	15	1	500	N	6	3	SM	A: 113.1 R: 6	Poor	C: Poor S: Good B: Good	Advanced ash dieback infection observed throughout tree's crown. 70% dieback in crown, tree appears to be in terminal decline.	U	<10 yrs
T27													
Common Horse Chestnut <i>Aesculus hippocastanum</i>	16	1	730	N	6.5	2	M	A: 241.1 R: 8.76	Good	C: Good S: Good B: Good	Tree is recovering well from a previous pseudomonas bacterial infection. Leaf miner infestation observed in tree's crown.	B.1	>40 yrs
T28											Estimated Measurements		
Leyland Cypress <i>X Cupressocyparis leylandii</i>	14	1	480	N	3	3	M	A: 104.2 R: 5.75	Good	C: Good S: Good B: Good	Off site tree could not be fully inspected and measurements given are estimated.	B.1	>40 yrs
T29											Estimated Measurements		
Leyland Cypress <i>X Cupressocyparis leylandii</i>	14	1	500	N	3	3	M	A: 113.1 R: 6	Good	C: Good S: Good B: Good	Off site tree could not be fully inspected and measurements given are estimated.	B.1	>40 yrs
T30											Estimated Measurements		
Leyland Cypress <i>X Cupressocyparis leylandii</i>	14	1	500	N	3	3	M	A: 113.1 R: 6	Good	C: Good S: Good B: Good	Off site tree could not be fully inspected and measurements given are estimated.	B.1	>40 yrs
T31													
Sycamore <i>Acer pseudoplatanus</i>	4.5	1	100	N	2.5	1.5	Y	A: 4.5 R: 1.19	Good	C: Good S: Good B: Good	Self seeded tree	C.1	>40 yrs
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Stems: Ø Diameter Y Young M Mature S Stem (Eq) Equivalent stem diameter using BS5837:2012 definition SM Semi-mature OM Over Mature B Basal area													

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T32													
Common Ash <i>Fraxinus excelsior</i>	4	3	52 (Eq)	N	1.5	1	Y	A: 1.2 R: 0.61	Good	C: Good S: Good B: Good	Self seeded tree.	C.1 >40 yrs	
T33													
Common or Black Elder <i>Sambucas nigra</i>	4	1	180	N	2	1.5	SM	A: 14.7 R: 2.16	Good	C: Good S: Good B: Good	Off site tree could not be fully inspected and measurements given are estimated.	C.1 20 to 40 yrs	
T34													
Grey Willow <i>Salix cinerea</i>	4.5	9	90 (Eq)	N	3	1.5	Y	A: 3.7 R: 1.08	Good	C: Good S: Good B: Good	Tree of limited amenity value.	C.1 >40 yrs	
T35													
Silver Birch <i>Betula pendula</i>	7	1	130	N	1.5	1.5	Y	A: 7.6 R: 1.55	Good	C: Good S: Good B: Good		C.1 >40 yrs	
T36													
Leyland Cypress <i>X Cupressocyparis leylandii</i>	8	1	360	N	2	0.5	SM	A: 58.6 R: 4.31	Good	C: Good S: Good B: Good		B >40 yrs	
T37													
Sycamore <i>Acer pseudoplatanus</i>	12	1	410	N	5	2.5	SM	A: 76.1 R: 4.92	Good	C: Good S: Ivy B: Good	Thick ivy is spreading throughout tree's stem into lower crown precluding a full stem inspection.	B.1 >40 yrs	
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T38													
Goat Willow <i>Salix caprea</i>	4	9	90 (Eq)	N	3	1	Y	A: 3.7 R: 1.08	Good	C: Good S: Good B: Good	Early mature tree. Tree of limited amenity value.		C.1 >40 yrs
T39													
Common Hornbeam <i>Carpinus betulus</i>	3	2	50 (Eq)	N	1	0.5	Y	A: 1.1 R: 0.59	Good	C: Good S: Good B: Good			C.1 >40 yrs
T40											Estimated Measurements		
Sycamore <i>Acer pseudoplatanus</i>	11	1	330	N	4	3	SM	A: 49.3 R: 3.96	Good	C: Good S: Good B: Good	Tree could not be fully inspected due to inaccessible location so could not be fully inspected and measurements given are estimated.		B.1 >40 yrs
T41											Estimated Measurements		
Sycamore <i>Acer pseudoplatanus</i>	12	1	380	N	4.5	3.5	SM	A: 65.3 R: 4.55	Good	C: Good S: Good B: Good	Tree could not be fully inspected due to inaccessible location so could not be fully inspected and measurements given are estimated.		B.1 >40 yrs
T42											Estimated Measurements		
Sycamore <i>Acer pseudoplatanus</i>	7.5	2	396 (Eq)	N	4	3	SM	A: 70.9 R: 4.75	Good	C: Good S: Good B: Good	Tree could not be fully inspected due to inaccessible location so could not be fully inspected and measurements given are estimated.		B.1 >40 yrs
T43													
Common Oak <i>Quercus robur</i>	15.5	1	890	N	9	6.5	M	A: 358.4 R: 10.68	Good	C: Good S: Ivy B: Good	Thick ivy is spreading throughout tree's stem into lower crown precluding a full stem inspection.		A.1 >40 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition		

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T44													
Common Oak <i>Quercus robur</i>	16	1	750	N	9.5	5.5	M	A: 254.5 R: 9	Fair	C: Fair S: Good B: Good	Tree's crown is slightly sparse.		B.1 >40 yrs
T45													
Common Oak <i>Quercus robur</i>	12	1	700	N	7	5	M	A: 221.7 R: 8.4	Decline	C: Poor S: Good B: Good	30% dieback observed in tree's crown. Cavity observed in tree's stem at point of previous limb tear out at 3m south.		B.1 20 to 40 yrs
T46													
Sycamore <i>Acer pseudoplatanus</i>	4.5	1	90	N	2	1	Y	A: 3.7 R: 1.08	Good	C: Good S: Good B: Good			C.1 >40 yrs
T47													
Sycamore <i>Acer pseudoplatanus</i>	8	1	380	N	4.5	2	SM	A: 65.3 R: 4.55	Good	C: Good S: Good B: Good			B.2 >40 yrs
T48													
Common Ash <i>Fraxinus excelsior</i>	0	3	402 (Eq)	N	4.5	2	SM	A: 73.3 R: 4.83	Good	C: Good S: Good B: Good	Early mature tree. Thick ivy is spreading throughout tree's stems into lower crown precluding a full stem inspection.		B.1 >40 yrs
T49													
Common Oak <i>Quercus robur</i>	18	1	800	N	10.5	3.5	M	A: 289.6 R: 9.6	Good	C: Good S: Ivy B: Good	Ivy is spreading throughout tree's stem into lower crown precluding a full stem inspection.		A.1 >40 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T50													
Common Horse Chestnut <i>Aesculus hippocastanum</i>	7	1	480	N	3.5	2	SM	A: 104.2 R: 5.75	Fair	C: Poor S: Fair B: Good	Major storm damage observed in tree's crown. Tree is recovering from previous pseudomonas bacterial infection.	C.1 10 to 20 yrs	
T51													
Lombardy Poplar <i>Populus nigra 'Italica'</i>	23	1	760	N	3.5	4.5	M	A: 261.3 R: 9.11	Good	C: Good S: Good B: Good		A.2 >40 yrs	
T52													
Western Balsam Poplar <i>Populus trichocarpa</i>	8.5	1	340	N	3.5	5.5	SM	A: 52.3 R: 4.08	Poor	C: Poor S: Fair B: Good	Tree is in terminal decline resulting from an advanced bacterial infection.	U <10 yrs	
T53													
Common Ash <i>Fraxinus excelsior</i>	11	1	470	N	7	2	SM	A: 99.9 R: 5.63	Poor	C: Poor S: Fair B: Good	Tree appears to be in terminal decline resulting from advanced ash dieback infection. 60% dieback observed in tree's crown.	U <10 yrs	
T54													
Common Hawthorn <i>Crataegus monogyna</i>	3	1	140	N	2	1	SM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good		C.1 20 to 40 yrs	
T55													
Common Hawthorn <i>Crataegus monogyna</i>	3	1	140	N	2	1	SM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good		C.2 20 to 40 yrs	
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition		

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T56													
Common Oak <i>Quercus robur</i>	8	1	290	N	4	3.5	SM	A: 38.1	Good	C: Good	Early mature tree	B.1 >40 yrs	
				E	3	3.5		R: 3.48		S: Good			
				S	2	3.5				B: Good			
				W	3	3.5							
T57													
Common Oak <i>Quercus robur</i>	8	1	380	N	4.5	3.5	SM	A: 65.3	Good	C: Good	Thick ivy is spreading throughout tree's stem precluding a full stem inspection.	B.1 >40 yrs	
				E	5.5	3.5		R: 4.55		S: Good			
				S	5.5	3.5				B: Good			
				W	5	3.5							
T58													
Common Oak <i>Quercus robur</i>	8	1	390	N	5	3.5	SM	A: 68.8	Good	C: Good	Thick ivy is spreading throughout tree's stem precluding a full stem inspection.	B.2 >40 yrs	
				E	5.5	3.5		R: 4.67		S: Good			
				S	5	3.5				B: Good			
				W	5.5	3.5							
T59													
Common Oak <i>Quercus robur</i>	8	1	360	N	4.5	3.5	SM	A: 58.6	Good	C: Good	Thick ivy is spreading throughout tree's stem precluding a full stem inspection.	B.3 >40 yrs	
				E	5	3.5		R: 4.31		S: Good			
				S	5	3.5				B: Good			
				W	5	3.5							
T60													
Common Oak <i>Quercus robur</i>	8	1	44	N	5	3.5	SM	A: 0.9	Good	C: Good	Thick ivy is spreading throughout tree's stem precluding a full stem inspection.	B >40 yrs	
				E	5	3.5		R: 0.53		S: Good			
				S	5.5	3.5				B: Good			
				W	5.5	3.5							
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Appendix 2: Tree Constraints Plans

Sheet 1



Indicative only

Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.

Category 'A' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'B' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

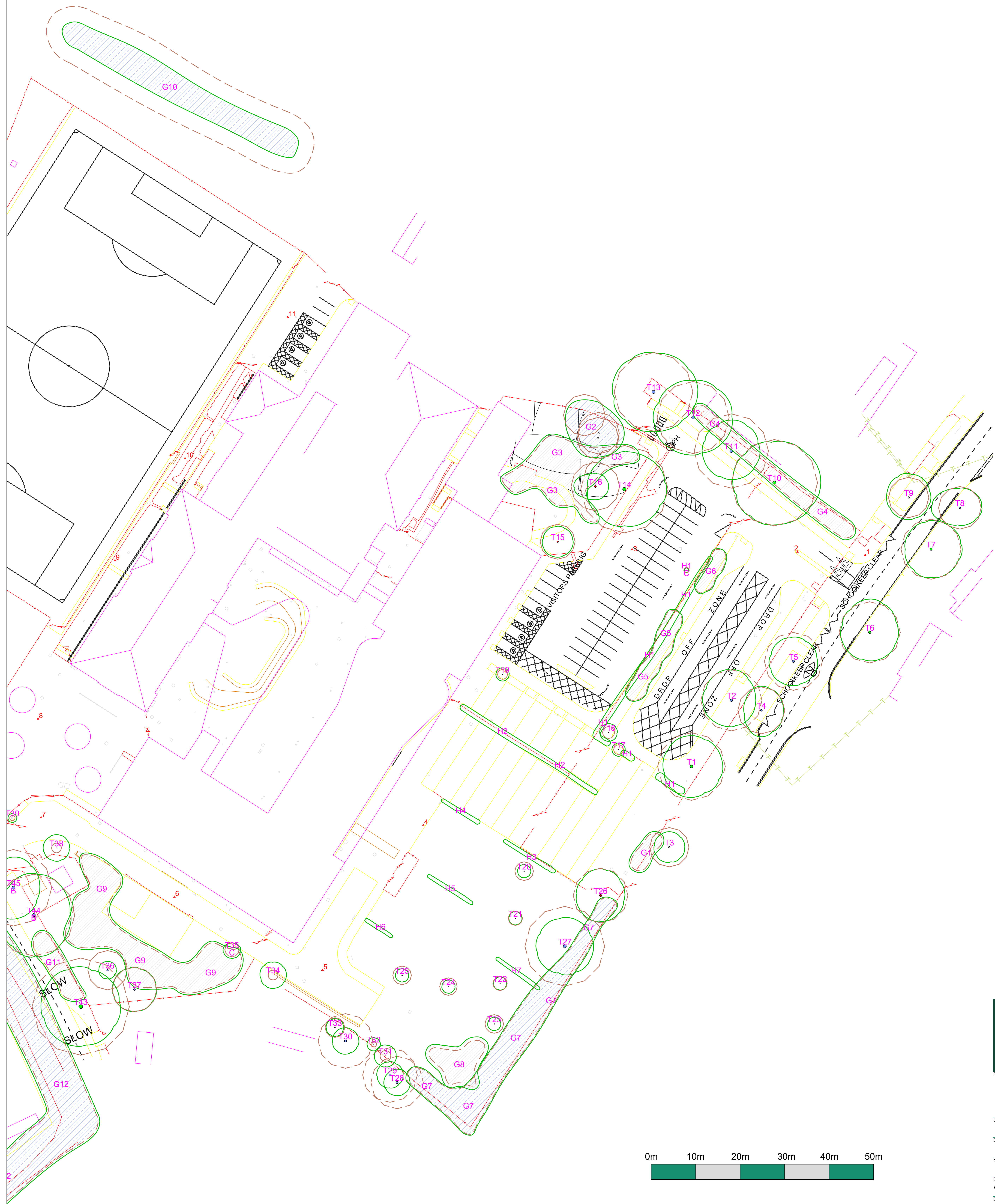
Category 'C' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 100mm.

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category 'A', 'B' and 'C' trees. This is a minimum area in m² which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.



Unit 3, Well House Barns, Chester, CH4 0DH
https://arbtech.co.uk, 01244 661170

Project: Newhall Green High School, Greenbrow Road, Wythenshawe, Greater Manchester, M23 2SX

Client: Arcadis LLP

Drawing: Tree Constraints Plan

Based on: TOPO - 14692

Drawing No: Arbtech TCP 01 Sheet 1 of 3

Date: May 2022

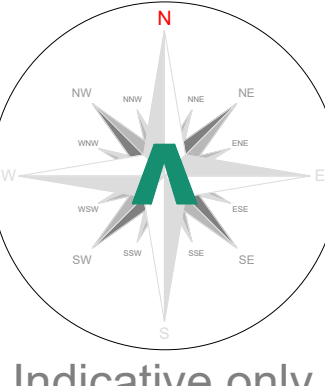
Scale: 1:250 @ A1

Drawn: AST

Tree No.	Tree Canopies	Trunks
T1	Category 'A' trees	Category 'A' groups
Category 'B' trees	Category 'B' groups	Category 'B' groups
Category 'C' trees	Category 'C' groups	Category 'C' groups

All dimensions should be rounded up to the nearest 100mm. The dimensions are to be taken from the drawing. The drawing is designed to reflect the principles of the land or design only, and make use of the information of the drawing. The drawing is not to be used as a substitute for the engineering or construction design or method statement. The drawing is not to be used as a substitute for the engineering or construction design or method statement. The drawing is not to be used as a substitute for the engineering or construction design or method statement. The drawing is not to be used as a substitute for the engineering or construction design or method statement.

Sheet 2

 Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use

Category 'A' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'C' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a

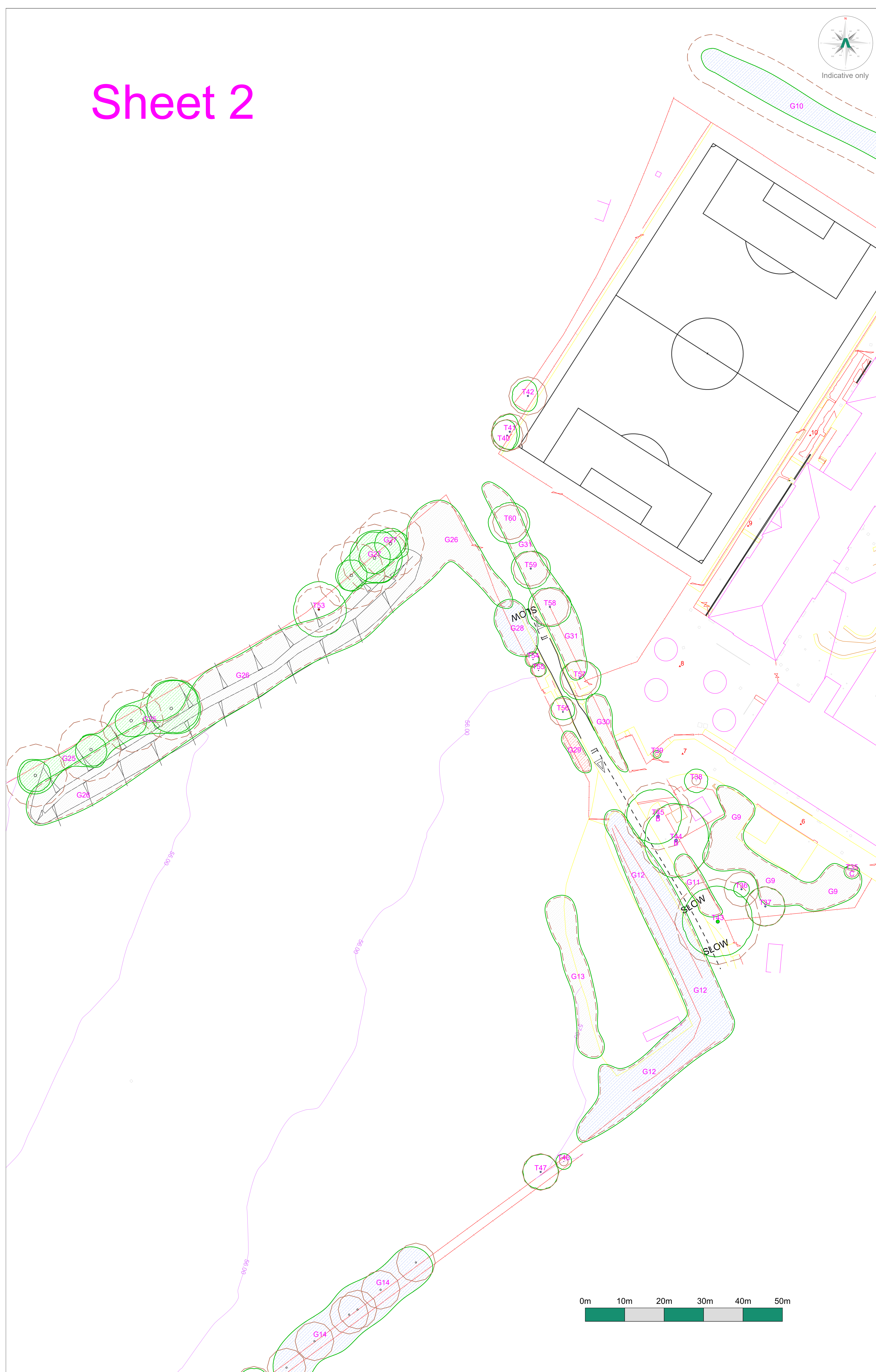
Best Protection Area

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category A, B and C trees. This is a minimum area

The RPA is calculated using the British Standard BS 5837:2012 'Trees

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.



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Project:
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Greenbrow Road,
Wythenshawe,
Greater Manchester,
M23 2SX

Client: Arcadis LLP

Drawing: **Tree Constraints Plan**

Based on: TOPO - 14692

Drawing No:	Rev:
Arbtech TCP 01 Sheet 2 of 3	

Date:	Scale:	Drawn:
May 2022	1:250 @ A1	AST

Key:

Tree	T1	Tree		Tree	
------	----	------	---	------	---

Nos.:		Canopies:		Trunks:	
RPA's:		Category 'A' trees:		Category 'A' groups:	

Category 'B' trees:		Category 'B' groups:		Category 'C' trees:	
---------------------	---	----------------------	---	---------------------	---

Category 'C' groups:		Category 'U' trees:		Category 'U' groups:	
All dimensions should be checked on site. No dimensions are to be scaled from this drawing. Please notify us of any discrepancies found. Aitch Consulting LLC cannot be held responsible for inaccurate measurements.					

This drawing is designed to reflect the principles of the layout or design only, and relates only to the preliminary retained trees.

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Sheet 3

 Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'A' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.

Category 'B' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'C' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

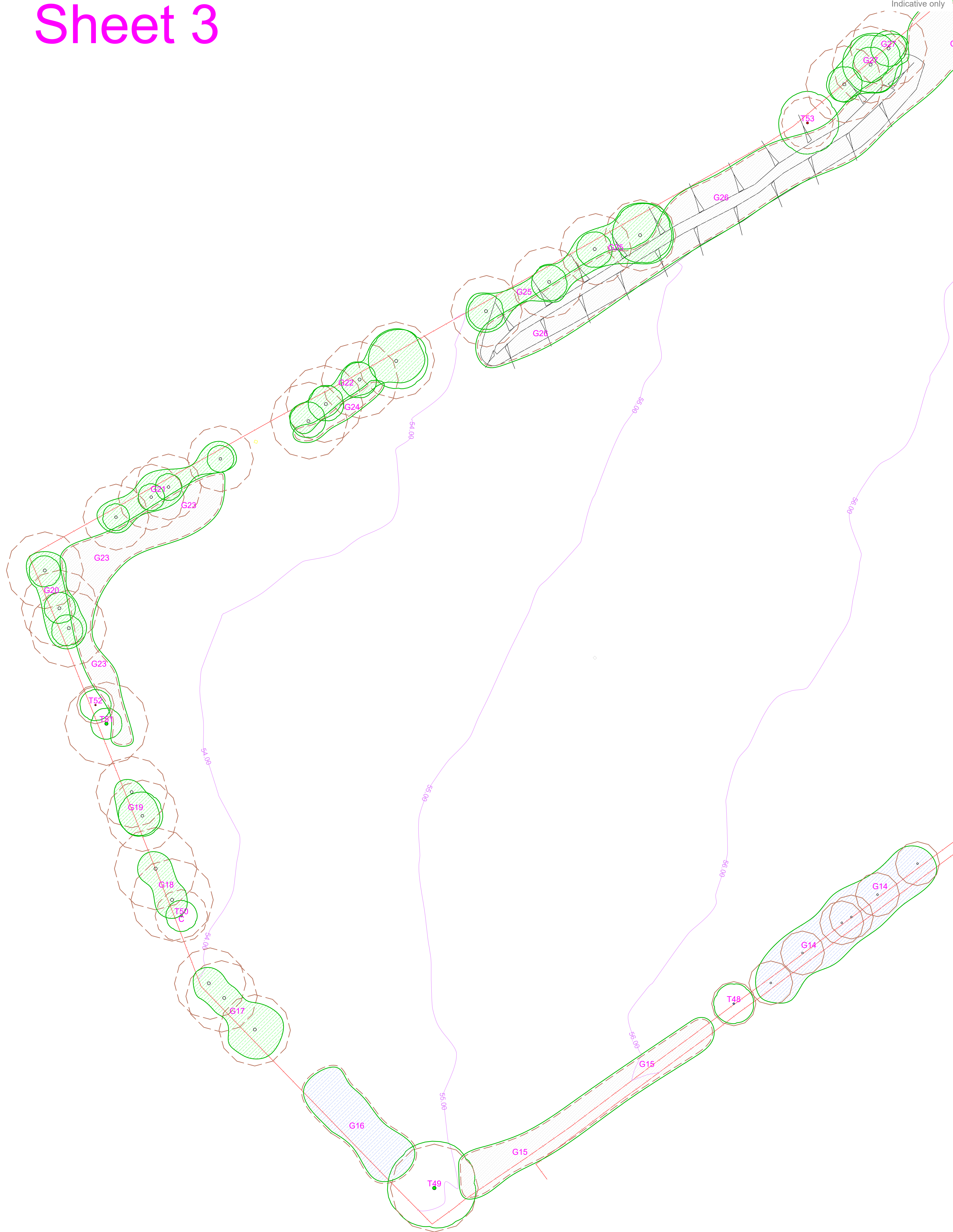
Category 'D' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or where trees with a

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category A, B and C trees. This is a minimum area in m² which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.



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M23 2SX

Client: **Arcadis LLP**

Drawing: **Tree Constraints Plan**

Based on: TOPO - 14692

Drawing No:	Rev:
Arbtech TCP 01 Sheet 3 of 3	

Date:	Scale:	Drawn
May 2022	1:250 @ A1	

Key:

Tree Nos.:	19	Tree Canopies:		Trunks
		Category		Category

Category 'A' trees:		Category 'B' groups:	
Category 'W' trees:		Category 'B' groups:	

Category 'C' groups:		Category 'U' trees:		Category 'U' groups:
-------------------------	---	------------------------	---	-------------------------

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This drawing is designed to reflect the principles of the layout or design only, and relates retained trees.

This drawing is not to be used as a definition part of the, engineering or construction, design.

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