TREE AWARE UK LTD
Arboricultural Consultancy

BS 5837: 2012 Tree Survey

Kiln Place

Undertaken by Alastair Gavin on behalf of Tree Aware UK Ltd
Date of survey 23rd of January 2014

[This document sets out to evaluate the trees or tree surveyed on the 23/01/2014 in accordance to BS 5837:2012 “Trees in relation to design demolition and construction" this document is not a tree condition survey, it categorizes the tree or trees based on their quality and value and thus allows for an informed decision to made in respect to the tree/trees retention and removal in connection to development.]

Methodology

This survey has been undertaken in compliance with BS 5837: 2012. This survey is not a tree condition survey; none of the trees have been climbed nor has any decay detection equipment been used, any comments in connection to the trees condition are incidental and secondary in nature, the main objective of this survey is to inform and guide decisions in connection to development.

Where hazardous trees have been identified and recommendations given for immediate action, this should been undertaken and arranged as soon as possible.

Sequential Reference Number

All trees surveyed have been given a sequential reference number such as T1, T2, T3 Etc where trees form a group (which is decided by the surveying Arboriculturalist) a group reference number will be provided these will be in the line of G1, G2, G3 etc

Species

The tree species will be listed in the schedule by their common name a key to their scientific names can be found below;

Individual trees

Tree Reference number	Common Name	Scientific Name	Native/None native
T1	Ornamental Pear	*Pyrus*	None Native
T2	Oak	*Quercus robur*	Native
T3	Ornamental Pear	*Pyrus*	None Native
T4	Ornamental Pear	*Pyrus*	None Native
T5	London Plane	*Platanus X hispanica*	None Native
T6	London Plane	*Platanus X hispanica*	None Native
T7	Alder	*Alnus glutinosa*	Native

T8	Alder	*Alnus glutinosa*	Native
T9	Cherry	*Prunus*	None Native
T10	London Plane	*Platanus X hispanica*	None Native
T11	Norway Maple	*Acer Platanoides*	None Native
T12	Norway Maple	*Acer Platanoides*	None Native
T13	Norway Maple	*Acer Platanoides*	None Native
T14	Cherry	*Prunus*	None Native
T15	Cherry	*Prunus*	None Native
T16	Cherry	*Prunus*	None Native
T17	Cherry	*Prunus*	None Native
T18	Sorbus	*Sorbus*	Native
T19	Silver Birch	*Betula pendula*	Native
T20	Cherry	*Prunus*	None Native
T21	Cherry	*Prunus*	None Native
T22	Acer	*Acer*	None Native
T23	Lime	*Tilia*	Native
T24	Silver Birch	*Betula pendula*	Native
T25	Weeping Willow	*Salix babylonica*	None native
T26	Weeping Willow	*Salix babylonica*	None native
T27	Weeping Willow	*Salix babylonica*	None native
T28	Willow	*Salix alba*	Native
T29	Hawthorn	*Crataegus monogyna*	Native
T30	Elderberry	*Sambucus*	Native
T31	Sycamore	*Acer Pseudoplatanus*	None Native
T32	Sycamore	*Acer Pseudoplatanus*	None Native
T33	Sorbus	*Sorbus*	Native

T34	Conifer	*Juniperus*	None Native
T35	Cherry	*Prunus*	None Native
T36	Willow	*Salix*	Native
T37	Willow	*Salix*	Native
T38	Sorbus	*Sorbus*	Native
T39	Willow	*Salix*	Native
T40	Willow	*Salix*	Native
T41	Maple	*Acer*	None Native
T42	London Plane	*Platanus X hispanica*	None Native
T43	Acer	*Acer*	None Native
T44	Acer	*Acer*	None Native
T45	Acer	*Acer*	None Native
T46	Hawthorn	*Crataegus monogyna*	Native
T47	Hawthorn	*Crataegus monogyna*	Native
T48	Hawthorn	*Crataegus monogyna*	Native
T49	Acer	*Acer*	None Native
T50	Elder Berry	*Sambucus*	Native
T51	Lime	*Tilia*	Native
T52	Lime	*Tilia*	Native
T53	Ash	*Fraxinus excelsior*	Native
T54	Ash	*Fraxinus excelsior*	Native
T55	Ash	*Fraxinus excelsior*	Native
T56	Silver Birch	*Betula pendula*	Native
T57	Ash	*Fraxinus excelsior*	Native
T58	Silver Birch	*Betula pendula*	Native
T59	Ash	*Fraxinus excelsior*	Native

T60	Conifer	*Juniperus*	None Native
T61	Hornbeam	*Carpinus betulus*	Native
T62	Silver Birch	*Betula pendula*	Native
T63	Acer	*Acer*	None Native
T64	Cherry	*Prunus*	None Native
T65	Eucalyptus	*Eucalyptus*	None Native
T66	Silver Birch	*Betula pendula*	Native
T67	Silver Birch	*Betula pendula*	Native
T68	Cherry	*Prunus*	None Native
T69	Cherry	*Prunus*	None Native
T70	Cherry	*Prunus*	None Native
T71	Beech	*Fagus sylvatica*	Native
T72	Acacia	*Acacia*	None Native
T73	Elder Berry	*Sambucus*	Native
T74	Cherry	*Prunus*	None Native
T75	Cherry	*Prunus*	None Native
T76	Conifer	*Juniperus*	None Native
T77	Ash	*Fraxinus excelsior*	Native

Groups of Trees

Tree Reference number	Common Name	Scientific Name	Native/None native
G1	Hawthorn London plane Cherry Silver Birch Oak Sorbus	*Crataegus monogyna* *Platanus X hispanica* *Prunus* *Betula pendula* *Quercus robur* *Sorbus*	Native None Native None Native Native Native Native
G2	Silver Birch	*Betula pendula*	Native

G3	Silver Birch	*Betula pendula*	Native
G4	Cherry Apple	*Prunus* *Malus*	None Native None Native
G5	Ash Elder berry Hawthorn sycamore	*Fraxinus excelsior* *Sambucus* *Crataegus monogyna* *Acer Pseudoplatanus*	Native Native Native None Native
G6	Holly Hawthorn Elder berry	*Ilex aquifolium* *Crataegus monogyna* *Sambucus*	Native Native Native
G7	Elder Berry	*Sambucus*	Native
G8	Hawthorn Elder berry Sycamore	*Crataegus monogyna* *Sambucus* *Acer Pseudoplatanus*	Native Native None Native
G9	Lime	*Tilia*	Native
G10	Beech Silver Birch Cherry	*Fagus sylvatica* *Betula pendula* *Prunus*	Native Native None Native
G11	Cherry Hawthorn Oak	*Prunus* *Crataegus monogyna* *Quercus robur*	None Native Native Native
G12	Conifer	Cypress	None Native

Tree Height

Tree Height has been taken in meters and is an approximate measurement

Diameter of Stem

The diameter of a single stem is taken at 1.5m above ground level. Where there are multiply stems arising from either the base of the tree or below 1.5m the diameter of the stem is calculated using annex C in the British standard BS 5837: 2012 handbook.

Crown Spread

This is measured in meters using the four cardinal points:

North

South

East

West

Height of first branch

Approximate height in meters of the first significant branch a cardinal point maybe given to indicate the direction the branch is growing in.

Canopy Height

Approximate height of the canopy taken in meters

Life Stage

The trees are classified into the following life stages dependant on their age. The category's are;

Young =	Y
Semi-mature =	SM
Early mature =	EA
Mature =	M
Over mature =	OM

General Observations

The tree/trees are observed for any structural or physiological conditions such as the presence of decay, structural defects, pest and disease pathogens etc any such identification will be noted and preliminary management recommendations made.

Estimated remaining contribution, in years

Based on the trees condition an estimate on the remaining useful life expectancy of the tree/trees is given these will be in the following category's

Under 10 years

10+

20+

40+

BS 5837 Category

Category A, B, C or U is given to the trees based on the below criteria.

The purpose of the categorization which is undertaken by the surveying Arboriculturalist is to identify the value (in a none fiscal sense) and the quality of the tree stock on site so that informed decisions can be made in regards to what trees should be removed or retained in connection to development.

Category A, B, C trees are considered worthy of retention where category U trees are generally considered unworthy for retention but may have conservation value which may be desirable to conserve.

Category A

Trees of high quality with an estimated remaining life expectancy of at least

40 years.

(Having one or more of the following qualities)

1 .Mainly arboricultural qualities
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 dominant and/or principal trees within an avenue)

2. Mainly landscape qualities
Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features

3. Mainly cultural values, including conservation
Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)

Category B

Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

(Having one or more of the following qualities)

1 .Mainly arboricultural qualities
Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation

2. Mainly landscape qualities
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

3 Mainly cultural values, including conservation
Trees with material conservation or other cultural value

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 150 mm

(Having one or more of the following qualities)

1. Mainly arboricultural qualities
Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories

2. Mainly landscape qualities
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 benefits

3. Mainly cultural values, including conservation
Trees with no material conservation or other cultural value

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 a 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.

<u>Groups of trees and woodlands</u>

Where groups of trees or woodlands exist on the site it is down to the surveying Arboriculturalist to designate these features and to decide on what information should be recorded in respect to these. In certain circumstances individual trees within a group or woodland are surveyed individually, such as when there is a need

to differentiate between them e.g. when variation is present in their structural condition.

Hedgerows, substantial internal or boundary hedges (including evergreen screens)

These are surveyed similarly to groups of trees with the lateral spread and average height and stem diameter ranges recorded. All woody species present on the site are recorded; this is to allow the potential constraints associated with such features to be fully assessed.

Where accurate measurements cannot be gained due to inaccessible trees a # will be put at the end of the figure indicating it is an estimate

Tree Survey Schedule

Individual trees

Sequential Reference Number	Species (Common Name)	Height	Stem Diameter	Branch Spread N	S	E	W	First Significant Branch	Canopy Height	Life Stage	General Observations	Estimated Remaining Contribution	BS 5837 Category
T1	Ornamental Pear	6m	90mm	1m	1m	1m	1m	2m	2m	Y	Tree leans northwards, rocking at root plate. **Recommend re-stake tree**	10+	C
T2	Oak	3m	10mm	1m	1m	1m	1m	1m	1m	Y	Small recently planted tree	10+	C
T3	Ornamental Pear	7m	95mm	1m	1m	1m	1m	2.5	2m	Y	Small young tree, slight movement in root plate. **Recommend re-stake tree**	10+	C
T4	Ornamental Pear	7m	85mm	1m	1m	1m	1m	2m	3m	Y	Small young tree	10+	C
T5	London Plane	25m+	770mm	6m	7m	6m	4m	5m	4m	M	Large tree suppressed by T6, tree leans eastwards	20+	B
T6	London Plane	25m+	550mm	8m	3m	2m	6m	6m	6m	M	Tree suppressed by T5, evidence of lower limb removal	20+	B
T7	Alder	6m	90mm	1m	1m	1m	1m	2m	2m	Y	Young tree in good condition	10+	C
T8	Alder	8m	105mm	1m	1m	1m	1m	2m	3m	Y	Young tree in good condition	10+	C

T9	Cherry	3m	45mm	1m	1m	1m	1m	2m	2m	Y	Newly planted tree	10+	C
T10	London Plane	25m+	565mm	6m	5m	6m	5m	2.5m	4m	M	Tree previously reduced with re-growths evident, limb reduce back from lamp post	20+	B
T11	Norway Maple	20m+	620mm	5m	2m	2m	4m	2.5m	5m	M	Tree suppressed by building and has been previously reduced	20+	B
T12	Norway Maple	20m+	510mm	5m	2m	2m	5m	4m	6m	M	Tree suppressed by building and has been previously reduced	20+	B
T13	Norway Maple	20m+	490mm	6m	2m	2m	5m	4m	6m	M	Tree suppressed by building and has been previously reduced	20+	B
T14	Cherry	6m	250mm	2m	2m	2m	2m	2m	3m	EM	Tree recently reduced showing signs of re-growths, tree leans slightly	10+	B
T15	Cherry	8m	350mm	2m	2m	2m	2m	3m	4m	M	Dead tree with decay at base **Recommend remove tree**	Under 10	C
T16	Cherry	4m	90mm	1m	1m	1m	1m	2m	3m	Y	Small tree moving in root plate. **Recommend re-stake tree**	10+	U
T17	Cherry	5m	110mm	1m	2m	2m	2m	2m	3m	Y	Good conditioned tree	10+	C

T18	Sorbus	8m	80mm	1m	1m	1m	1m	2m	2.5m	Y	Good conditioned tree	10+	C
T19	Silver Birch	20m+	350mm#	4m#	6m#	4m#	3m#	2.5m	2m	M	Tree located in garden, tree has poor form	10+	C
T20	Cherry	5m	50mm	1m	1m	1m	1m	2m	3m	Y	Newly planted tree	10+	C
T21	Cherry	9m	370mm	3m	2m	3m	2m	2.5m	3m	M	Recently reduced, bark damage on limb re-growths present	10+	C
T22	Acer	5m	50mm	1m	1m	1m	1m	2m	2m	Y	Newly planted tree	10+	C
T23	Lime	18m	355mm	4m	3m	3m	4m	4m	5m	M	Good conditioned tree	40+	A
T24	Silver Birch	4m	40mm	1m	1m	1m	1m	2m	2m	J	Juvenile tree poorly staked **Recommend re-stake tree**	10+	C
T25	Weeping Willow	6m	140mm	2m	2m	2m	2m	2m	2m	SM	Dead Tree **Recommend remove tree**	Under 10	U
T26	Weeping Willow	7m	185mm	2m	3m	3m	3m	2.5m	1m	SM	Good conditioned tree one sided.	20+	B
T27	Weeping Willow	4m	110mm	2m	3m	2m	2m	2m	1m	SM	Leaning tree, with movement in root plate. **Recommend re-stake tree**	10+	C
T28	Willow	20m+	660mm 720mm	2m	2m	4m	2m	2m	2m	M	Poor conditioned tree, recently pollarded, tree is likely to be hollow. Bark loss evident. **Recommend**	Under 10	U

											remove tree		
T29	Hawthorn	14m	400mm	4m	4m	4m	5m	2m	3m	M	Good conditioned tree	20+	B
T30	Elderberry	8m	175mm	2m	2m	2m	2m	1.5m	3m	M	Wire fencing wrapped around tree and is present within the trunk	10+	C
T31	Sycamore	25m+	750mm	2m	1m	3m	2m	2.5m	5m	M	Tree reduced recently with re-growths evident	20+	B
T32	Sycamore	25m+	1160mm	4m	3m	4m	4m	2m	7m	M	Tree reduced recently with re-growths evident	20+	B
T33	Sorbus	16m	610mm	3m	3m	3m	2m	2.5m	4m	M	Decay at base with fruiting bodies present. **Recommend remove tree**	Under 10	U
T34	Conifer	8m	150mm 100mm 100mm	2m	3m	2m	2m	30cm	Ground level	SM	Multi stemmed tree with poor form	10+	C
T35	Cherry	2.5m	40mm	1m	1m	1m	1m	50cm	1m	Y	Good conditioned tree	10+	C
T36	Willow	2.5m	95mm	2m	2m	2m	2m	1m	30cm	Y	Good conditioned tree	10+	C
T37	Willow	3m	90mm	2m	2m	2m	2m	50cm	30cm	Y	Good conditioned tree	10+	C
T38	Sorbus	2m	50mm	1m	1m	1m	1m	1m	1m	Y	Good conditioned tree	10+	C
T39	Willow	5m	130mm	2m	2m	2m	2m	2m	30cm	Y	Bark damage on trunk	10+	C

T40	Willow	5m	80mm	2m	2m	2m	2m	30cm	30cm	Y	Good conditioned tree	10+	C
T41	Maple	25m+	730mm	8m	9m	8m	8m	2m	3m	M	Bark damage/decay at base north side of trunk. **Recommend monitor condition**	10+	C
T42	London Plane	25m+	965mm	10m	9m	9m	9m	2.5m	4m	M	Decay in limb east side of tree **recommend remove or reduce limb**	20+	B
T43	Acer	8m	75mm	1m	1m	1m	1m	1m	1m	Y	Good conditioned tree	10+	C
T44	Acer	8m	70mm	1m	1m	1m	1m	2.5m	2.5m	Y	Young tree bark damage at base	10+	C
T45	Acer	8m	75mm	1m	1m	1m	1m	2.5m	3m	Y	Young tree bark damage at base	10+	C
T46	Hawthorn	6m	500mm#	4m#	3m#	3m#	2m#	1.5m	2.5m	M	Tree leans Eastwards, ivy covered at base	20+	B
T47	Hawthorn	4m	115mm	2m	2m	1m	1m	2m	1.5m	Y	Good conditioned tree	10+	C
T48	Hawthorn	6m	160mm	2m	2m	2m	2m	2m	1.9m	SM	Good conditioned tree	20+	B
T49	Acer	4m	70mm	1m	1m	1m	1m	2.3m	2m	Y	Good conditioned tree	10+	C
T50	Elder Berry	7m	210mm#	3m#	2m#	2m#	2m#	2m	2m	M	Good conditioned tree	20+	B
T51	Lime	25m+	650mm	4m	4m	4m	2m	4m	10m	M	Good conditioned tree,	20+	B

											previously reduced		
T52	Lime	25m+	580mm	3m	3m	3m	3m	2m	4m	M	Good conditioned tree, previously reduce, epicormic growth present	20+	B
T53	Ash	20m+	505mm	5m	5m	5m	5m	3m	5m	M	Good conditioned tree	40+	A
T54	Ash	20m+	490mm	6m	5m	7m	6m	3m	4m	M	Good conditioned tree	40+	A
T55	Ash	12m	285mm	4m	5m	4m	5m	3m	4m	EM	Good conditioned tree	40+	A
T56	Silver Birch	20m+	250mm#	2m#	3m#	4m#	2m#	3.5m	2m	M	Tree suppressed by building	20+	B
T57	Ash	20m+	550mm	5m	6m	7m	7m	2.5m	5m	M	Good conditioned tree	40+	A
T58	Silver Birch	18m	350mm	4m	3m	4m	3m	2m	2m	M	Good conditioned tree, slight lean easterly	20+	B
T59	Ash	12m	410mm	3m	4m	5m	4m	2.5m	4m	M	Tree previously reduced	20+	B
T60	Conifer	18m	250mm	2m	2m	2m	2m	2m	1.8m	M	Good conditioned tree	40+	A
T61	Hornbeam	4m	60mm#	1m#	1m#	1m#	1m#	2m	2m	Y	Good conditioned tree	10+	C
T62	Silver Birch	14m	400mm	4m	4m	4m	5m	3m	4m	M	Good conditioned tree	20+	B
T63	Acer	3m	70mm	1m	1m	1m	1m	2m	2m	Y	Tree moving in root plate. **Recommend re-staking tree**	10+	C
T64	Cherry	8m	450mm	3m	3m	3m	3m	2m	4m	M	Tree has had large branch removed from canopy.	10+	C

T65	Eucalyptus	25m+	450mm#	2m#	2m#	2m#	2m#	6m	3m	M	Good conditioned tree	40+	A
T66	Silver Birch	9m	300mm#	4m#	3m#	3m#	3m#	2m	3m	M	Good conditioned tree	40+	A
T67	Silver Birch	14m	400mm#	4m#	4m#	3m#	3m#	3m	3m	M	Good conditioned tree, tree leans easterly	40+	A
T68	Cherry	6m	180mm	2m	2m	2m	2m	2.5m	3m	SM	Poor conditioned tree, defect in trunk. **Recommend remove tree**	Under 10	U
T69	Cherry	4m	90mm	1m	1m	1m	1m	2.5m	2.5m	Y	Good conditioned tree	10+	C
T70	Cherry	4m	80mm	1m	1m	1m	1m	90cm	2.5m	Y	Tree moving in root plate. **Recommend re-stake tree**	10+	C
T71	Beech	25m+	740mm	7m	7m	8m	7m	2m	3m	M	Good conditioned tree	40+	A
T72	Acacia	10m	20mm#	3m	2m	2m	2m	2m	2.5m	EM	Good conditioned tree	20+	B
T73	Elder Berry	6m	100mm	2m	2m	2m	3m	1m	2.5m	M	Good conditioned tree	10+	C
T74	Cherry	12m	445mm	4m	4m	4m	3m	2.5m	3m	M	Tree has two growing leaders, tree previously reduced	10+	C
T75	Cherry	12m	230mm#	2m	3m	3m	3m	2m	2.5m	M	Good conditioned tree	20+	B
T76	Conifer	10m	200mm	2m	2m	2m	3m	1m	Ground level	M	Good conditioned tree	20+	B
T77	Ash	20m+	700mm#	3m	3m	4m	5m	2m	6m	M	Large Tree previously reduce with re-growths present,	20+	B

											could not fully inspect, due to restricted access		

Sequential Reference Number	Species (Common Name)	Height	Stem Diameter	Branch Spread N	S	E	W	First Significant Branch	Canopy Height	Life Stage	General Observations	Estimated Remaining Contribution	BS 5837 Category
G1	Hawthorn London plane Cherry Silver Birch Oak Sorbus	12m	570mm	5m	3m	4m	4m	2m	2m	SM/EM	Group of mixed trees species forming a seating area and walk way, generally in good condition with some average conditioned trees within group	20+	B
G2	Silver Birch	8m	300m	2m	3m	2m	2m	2m	4m	EM	Large group of trees leaning northwards away from building	20+	B
G3	Silver Birch	16m	400m	5m	2m	4m	3m	3m	4m	M	Poor formed group, one tree has dead leader. **Recommend remove dead leader.**	10+	C
G4	Cherry Apple	10m	350mm	6m	3m	3m	3m	2m	2m	M	Group of tree in a line, decay fruiting bodies on cherry. **Recommend monitor cherry tree**	10+	C

G5	Ash Elder berry Hawthorn sycamore	14m	250mm	3m	3m	3m	3m	2m	2m	SM/EM	Group has poor form, condition average	10+	C
G6	Holly Hawthorn Elder berry	8m	125mm	2m	1m	1m	1m	2m	1.5m	SM	Group contains poor formed specimens	10+	C
G7	Elder Berry	6m	180mm	2m	3m	2m	3m	20cm	1.5m	M	Poor formed trees within group, groups leans south westerly	10+	C
G8	Hawthorn Elder berry Sycamore	10m	410mm	2m	3m	4m	2m	4m	2m	M	Poor Formed group of trees, within reduced trees contained within group	10+	C
G9	Lime	25m+	720mm	8m	6m	5m	5m	3m	4m	M	Group of good conditioned trees	40+	A
G10	Beech Silver Birch Cherry	20m+	585mm	6m	6m	4m	6m	1m	3m	M	Group of good conditioned trees	20+	B
G11	Cherry Hawthorn Oak	25m+	550mm	5m	2m	2m	4m	2m	2m	SM/M	Large trees within group previously reduced, smaller trees also present in group	10+	C
G12	Conifer	12m	200mm	2m	2m	2m	2m	1m	Ground Level	M	Group of good conditioned trees	20+	B

Root Protection Plan

(Please see separate document)