BS 5837: 2012 Tree Survey

31 Dobson Road, Crawley

Undertaken by Alastair Gavin on behalf of Tree Aware UK Ltd on the 28/04/2016

[This document sets out to evaluate the trees surveyed on the 28/04/2016 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;

<table>
<thead>
<tr>
<th>Tree Reference number</th>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Native/None native</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Oak</td>
<td>Quercus robur</td>
<td>Native</td>
</tr>
<tr>
<td>T2</td>
<td>Ash</td>
<td>Fraxinus excelsior</td>
<td>Native</td>
</tr>
<tr>
<td>T3</td>
<td>Sycamore</td>
<td>Acer Pseudoplatanus</td>
<td>None Native</td>
</tr>
<tr>
<td>T4</td>
<td>Lime</td>
<td>Tilia cordata</td>
<td>Native</td>
</tr>
<tr>
<td>T5</td>
<td>Lime</td>
<td>Tilia cordata</td>
<td>Native</td>
</tr>
<tr>
<td>T6</td>
<td>Lime</td>
<td>Tilia cordata</td>
<td>Native</td>
</tr>
</tbody>
</table>
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
Semi-mature
Early mature
Mature
Over mature

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.

Groups of trees and woodlands

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.
<table>
<thead>
<tr>
<th>Sequential Reference Number</th>
<th>Species (Common Name)</th>
<th>Height</th>
<th>Stem Diameter</th>
<th>Branch Spread N/S/E/W in meters</th>
<th>First Significant Branch</th>
<th>Canopy Height</th>
<th>Life Stage</th>
<th>General Observations</th>
<th>Estimated Remaining Contribution in years</th>
<th>BS 5837 Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Oak</td>
<td>20m+</td>
<td>1260mm</td>
<td>6, 6, 4, 5</td>
<td>2m</td>
<td>2m</td>
<td>Mature</td>
<td>Large mature Oak in an average condition, average form to tree, cavity at base north west side of tree, dead wood in canopy, evidence of past significant branch removal epicormic growth present on stem. <strong>Recommendation</strong> Remove dead wood from tree, monitor condition</td>
<td>20+</td>
<td>B</td>
</tr>
<tr>
<td>T2</td>
<td>Ash</td>
<td>20m+</td>
<td>930mm#</td>
<td>7, 4, 11, 5</td>
<td>6m</td>
<td>6m</td>
<td>Mature</td>
<td>Ivy on stem of tree as such tree could not be fully inspected, fallen decay bracket on ground under tree, large side limb extending eastwards, dead wood in canopy, evidence of past pruning, bird nest in tree, small cavities in pruning/lost branch wounds. <strong>Recommendation</strong> Remove dead wood from tree</td>
<td>10+</td>
<td>C</td>
</tr>
<tr>
<td>Tree</td>
<td>Species</td>
<td>Height (m)</td>
<td>DBH (mm)</td>
<td>Height (mm)</td>
<td>Diameter (mm)</td>
<td>Condition</td>
<td>Condition Description</td>
<td>Recommendation</td>
<td></td>
<td></td>
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<tr>
<td>T3</td>
<td>Sycamore</td>
<td>20+</td>
<td>620</td>
<td>3, 6, 7, 3</td>
<td>1.7</td>
<td>Mature</td>
<td>Poor formed tree, Ivy on stem of tree and into canopy as such tree could not be fully inspected, dead wood in canopy, Ivy suppressing trees growth, tree suppressed by adjacent trees, hanging dead limb in tree, small area of missing bark on stem.</td>
<td>Remove dead wood, hanging limb and Ivy from tree.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td>Lime</td>
<td>20+</td>
<td>550</td>
<td>4, 3, 3, 3</td>
<td>4</td>
<td>Mature</td>
<td>Average conditioned tree, signs of decline and die back in canopy, twin growing leaders slight lean to stem in a north easterly direction.</td>
<td>Reduce tree by 30% and remove dead.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td>Lime</td>
<td>20+</td>
<td>510</td>
<td>4, 3, 4, 3</td>
<td>2</td>
<td>Mature</td>
<td>Average conditioned tree signs of die back in canopy, epicormic growth at base dead wood in canopy, could not fully inspect tree due to epicormic growth, small amount of Ivy on stem.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### T6
- **Species:** Lime
- **Height:** 20m+
- **Girth:** 510mm
- **Crown Size:** 5, 3, 3, 4
- **Crown Spread:** 4m, 2m
- **Condition:** Mature
- **Inspection Notes:** Average conditioned tree with significant Ivy coverage as such tree could not be fully inspected, signs of die back in canopy, epicormic growth at base further restricting the inspection, dead wood in canopy, small amount of Ivy on stem.
- **Recommendation:** Reduce tree by 30% and remove dead wood, Ivy and epicormic growth.
- **Rating:** 10+ C

### T7
- **Species:** Lime
- **Height:** 20m+
- **Girth:** 490mm
- **Crown Size:** 4, 3, 3, 3
- **Crown Spread:** 2.5m, 2.5m
- **Condition:** Mature
- **Inspection Notes:** Average conditioned tree, signs of die back in canopy, significant epicormic growth at base and significant dead wood in canopy, could not fully inspect tree due to epicormic growth, small amount of Ivy on stem.
- **Recommendation:** Reduce tree by 30% and remove dead wood, Ivy and epicormic growth.
- **Rating:** 10+ C
<table>
<thead>
<tr>
<th>Tree No.</th>
<th>Species</th>
<th>DBH</th>
<th>Height</th>
<th>Height Measurement</th>
<th>Height to Girth Ratio</th>
<th>Height to DBH Ratio</th>
<th>Condition</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>T8</td>
<td>Lime</td>
<td>20m+</td>
<td>670mm#</td>
<td>6, 5, 3, 5</td>
<td>2m</td>
<td>1.7m</td>
<td>Mature</td>
<td>Significant Ivy coverage to tree, as such tree could not be fully inspected, average form to tree, dead wood in canopy, tree overhangs public footpath, evidence of past reduction. <strong>Recommendation</strong> Remove Ivy and re-inspect tree, consider a reduction of 30%.</td>
</tr>
</tbody>
</table>
Root Protection/Constraint Plan

(Please see separate document)