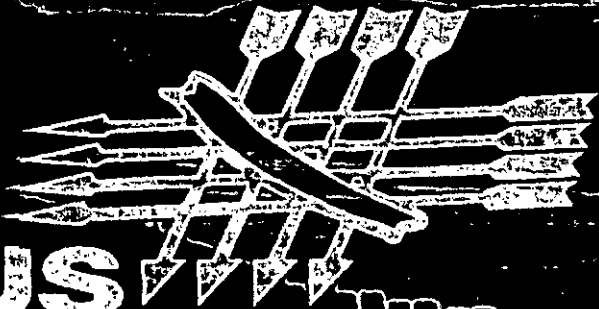




ECUS

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Oak Close, Barnsley Tree Survey



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June 2010



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1 Introduction

1.1 Site Description and Location

- 1.1.1 The site comprises a roughly rectangular area of shallowly sloping within an establish residential area near to Hoyland, Barnsley located at Oak Close, Barnsley, NGR SE364 002. The location of the site is shown as Figure 1 to provide context to the survey and locality.

Figure 1: Aerial Photograph



- 1.1.2 In order to facilitate an application to obtain permission to redevelop the site area the Client has requested that a BS5837 Tree Survey should be prepared. In undertaking the tree survey the assessment has been carried out in accordance with the specifications contained within BS 5837 Trees in Relation to Construction (2005).



2 Tree Survey Appraisal Methodology

2.1 Survey Objectives

2.1.1 This tree survey has been carried out by Christopher Barker, dipHort, CEnv with the objective of:

- Identifying the individual tree species present at the site by means of visual inspection;
- To define the approximate age, condition and canopy spread of all individual mature trees identified and the value of these within the development context;
- To identify any trees that present a risk to foundations that may be constructed on the site and recommend action to remove this risk; and
- Recommend tree management / mitigation measures where appropriate.

2.1.2 *The survey took the form of an inspection of the site carried out in May 2010. The survey broadly assessed the condition and arboricultural value of the trees lying within or adjacent to the site area paying particular attention to any mature individual trees present within or adjacent to the identified development site area, in order to prepare an assessment in accordance with BS 5837 Trees in Relation to Construction (2005).*

2.2 Survey Methodology

2.2.1 The methodology set out below is a detailed summary of the suggested approach to tree assessment as described in British Standard 5837 Trees in Relation to Construction (2005). This report has applied the methodology to all significant individual trees present on the site.

2.3 Trees

2.3.1 Trees have been broadly assessed based on guidance set out within the British Standard BS 5837: (2005) Trees in Relation to Construction – Recommendations. This standard provides recommendations and guidance on the principles to be applied to achieve successful integration of development with trees, shrubs and hedgerows. Where development (including demolition) is to occur, the standard provides guidance on the approach needed to decide which trees are appropriate for retention, and the means for protecting these trees during the development (including demolition and construction work) and the means of incorporating trees into the developed landscape.

2.3.2 Trees on the site have been divided into one of four categories (based on the cascade chart for tree quality assessment). These are classed as A, B, C or R (Section 4.3 of BS 5837) within the table in Appendix 1. This gives an indication as to the tree's importance in relation to the site, the local landscape and, also, the value and quality of the existing trees on site. This assists informal decisions concerning which trees should be removed or retained should development occur. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below). Categories A, B and C cover trees that should be a material consideration in the development process, each with three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural (nature conservation) values. Category R trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are for this reason not considered in the planning process. In assigning trees to the A, B or C categories, the presence of



any serious disease or tree – related hazard is taken into account. If the disease is considered fatal and / or irremediable, or likely to require sanitation for the protection of other trees it may be categorised as R, even if they are otherwise of considerable value.

2.3.3 Category (A): Trees whose retention is most desirable and are of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (a minimum of 40 years) and may comprise:

- (i) Trees which are particularly good examples of their species especially rare or unusual, or essential components of groups or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue);
- (ii) Trees, or groups of trees which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups);
- (iii) Trees or groups of significant conservation, historical, commemorative or other value (e.g. Veteran or wood-pasture trees).

2.3.4 Category (B): Trees whose retention is considered desirable and are of moderate quality and value. These trees are considered to be in such a condition as to make a significant contribution (a minimum of 20 years) and may comprise:

- (i) Trees that might be included in the high category but because of their numbers or slightly impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage), are downgraded in favour of the best individuals;
- (ii) Trees present in numbers such that they form distinct landscape features and attract a higher collective rating than they would as individuals. Individually these trees are not essential components of formal or semi-formal arboricultural features, or trees situated mainly internally to the site and have little visual impact beyond the site;
- (iii) Trees with clearly identifiable conservation or other cultural benefits.

2.3.5 Category (C): Trees that could be retained and are considered to be of low quality and value. These trees are in an adequate condition to remain until new planting could be established (a minimum of ten years) or are young trees with a stem diameter below 150mm and may comprise:

- (i) Trees not qualifying in higher categories;
- (ii) Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value and or trees offering low or only temporary screening benefit;
- (iii) Trees with very limited conservation or other cultural benefits.

2.3.6 Category (R): Trees for removal are those trees in such a condition that any existing value would be lost within 10 years and which should in the current context be removed for reasons of sound arboricultural management. Trees within this category are:

- (i) 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 R trees;



- (ii) Trees that are dead or are showing signs of significant, immediate or irreversible overall decline;
- (iii) 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.

2.3.7 Species have been recorded by common and botanical name. Height has been estimated in metres and stem diameter measured at 1.5 metres in centimetres unless impractical.

2.3.8 In the assessment particular consideration has been given to:

- (a) The health, vigour and condition of each tree;
- (b) The presence of any structural defects in each tree and its life expectancy;
- (c) The size and form of each tree and its suitability within the context of the proposed scheme;
- (d) The location of each tree relative to existing site features, e.g. its value as a screen or as a skyline feature.

2.3.9 Age class is assessed according to the age class categories referred to in BS 5837.

YNG: Young trees age less than 1/3 life expectancy.

SM: Middle age trees 1/3 – 2/3 life expectancy.

M: Mature trees over 2/3 life expectancy.

OM: Over mature – declining or moribund trees of low vigour.

2.3.10 The overall condition of any individual tree, or group of trees, has been referred to using one of the definitions listed below. A more detailed description of condition has been noted in the Tree Schedule.

G Good: A sound tree or trees needing little, if any, attention

F Fair: A tree or trees with minor but rectifiable defects or in the early stages of stress, from which it may recover

P Poor: A tree or trees with major structural and physiological defects or stressed such that it would be very expensive and inappropriate to retain

D Dead: A tree or trees no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are becoming or have become dangerous

2.3.11 Major defects or diseases and relevant observations have also been recorded. Dead wood has been defined as the following:

Twigs and small branch material	Up to 5cm in diameter
Minor dead wood	5cm to 10cm in diameter
Major dead wood	10cm in diameter and above

2.3.12 The survey was completed from ground level only. Aerial inspections were not undertaken. Evaluations of tree conditions given within this assessment apply to the date of survey and cannot be assumed to remain unchanged, and it may be necessary to review these within 24 months, in accordance with sound arboricultural practice.



2.4 Site Plan & Tree schedules

- 2.4.1 The extent and positions of significant individual trees and groups of trees on the site are shown on the Site Plan (Figure 2). The positioning of the individual trees and groups of trees are accurately positioned using the topographical site plan supplied as a base. Where the topographical survey did not record individual tree positions these have been estimated and individual positions have been placed as best as possible in relation to surrounding features present and by use of aerial photography.
- 2.4.2 A summary table that includes the individual trees and groups of trees identified on the site, included in the Tree Assessment Report detailing information on each group of trees, is provided in Appendix 1. Within the summary table maximum RPA's (m²) for estimated tree diameters have been included where appropriate, as well as a calculated corresponding radius of the circle for that RPA. The Root Protection Areas are formulated as described below and assist when designing layouts in relation to trees.

2.5 Root Protection Area (RPA)

- 2.5.1 Below ground constraints to development are represented by the root plate around a tree which needs protecting in order for the tree to be incorporated into a proposed scheme, without adverse harm to the tree or structural integrity of the proposed footpath or bridge abutments. This area is illustrated by the Root Protection Area (RPA) and is calculated according to the formula set out in Clause 5, BS 5837 (2005). This area is equivalent to a circle with a radius 12x the stem diameter for single stem trees and 10x the basal diameter for trees with more than one stem arising less than 1.5 metres above ground level.

Table 1: Formula for calculating Root Protection Area

$\text{RPA (m}^2\text{)} = (\text{stem diameter (mm)} \times 12 / 1000)^2 \times 3.142$
This figure should be capped to 707m ² , that is, equivalent to a circle with a radius of 15m, or a square with approximately 26m sides

Taken from Table 2: Calculating the RPA , BS5837 (2005).



3 Tree Survey Findings

3.1 Character of Survey Area

3.1.1 The tree inspection took the form of a walkover inspection completed by Christopher Barker dipHort, CEnv on 21 May 2010. Each individual semi-mature or mature tree of significance was identified and visually inspected and classified. The trees identified during the survey of the site have been individually noted and identified within this report and are shown on the site map within Figure 2.

3.1.2 The survey site is located in an established residential area over looked from all sides by residential houses. The site is not occupied by any buildings and is for the most part either devoid of vegetation or occupied by short perennials / ephemerals. There are a number of existing trees along the north and east boundaries of the site that have been inspected. A summary of specific details on each tree is included within the Tree Schedule contained in Appendix 1. Below are more detailed results of the tree survey.

3.2 Details of Trees Identified

3.2.1 Tree T1 is a mature Birch located very close to the north perimeter of the site. This tree provides the properties to the north with a well established canopy screen. The single upright trunk supports an open, evenly balanced canopy with pendulous habit common to the species. Minor dead wood is visible to the lower branches but there are no nests or potential bat roost opportunities visible. The tree is included within Photograph 3. This tree is recommended for retention and placed in category B2. An RPA of 3.6m is required to protect the root zone of this tree.

3.2.2 Tree T2 is a Norway Maple, possibly a hybrid with Sycamore which is not uncommon to the area. It is multi-stemmed from the base with two major well balanced trunks supporting an openly irregular canopy that is heavy to the South side. Minor dead wood is visible in the canopy and basal regeneration is evident. Ash and Maple saplings are providing low canopy cover. The tree is pictured in Photograph 3. There is no indication from ground level of nesting birds or suitable bat roost opportunities at the time of the survey. This tree is recommended for retention and placed in category B2. An RPA of 4.2m is required to protect the root zone of this tree.

3.2.3 Tree T3 is also a Norway Maple, (possibly also a hybrid with Sycamore). It is multi-stemmed from the base with two major trunks favoring slightly to the south and supporting an openly irregular canopy that is not well balanced. Structurally this tree has some significant dead wood, poor canopy shape and is partly overshadowed by adjacent trees. Basal regeneration is evident. A Cypress hedge in the neighboring property is partially screening and dominating the north aspect of this tree. The tree is shown in Photograph 3. There is no indication from ground level of nesting birds or suitable bat roost opportunities at the time of the survey. This tree may be retained or could be removed as it is placed in category C2. If retained, an RPA of 3.3m will be required to protect the root zone of this tree.

3.2.4 Tree T4 is another potentially hybrid Norway Maple located close to the site boundary. It has a single trunk supporting a well balanced, openly irregular canopy with minor dead wood. The lower branches have been removed. The established Cypress hedge is once again present to the rear (north) side reducing the canopy on this side. The tree is shown in Photograph 3. There is no indication from ground level of nesting birds and little obvious sign of suitable bat roost opportunities at the time of the survey. This tree



may be retained or could be removed as it is placed in category C2. If retained, an RPA of 3.7m will be required to protect the root zone of this tree.

- 3.2.5 Tree T5 is another potentially hybrid Norway Maple located a short distance from the other. It has a single trunk supporting a broadly ascending canopy, irregular in places, that is unevenly balanced favoring the west. There is significant Laurel undergrowth around the base of the tree. A major wound on the trunk is in the process of healing over. There is, however, significant dead wood visible in canopy. The tree is shown in Photograph 4. There is no indication from ground level of nesting birds or suitable bat roost opportunities at the time of the survey. This tree may be retained or could be removed as it is placed in category C2. If retained, an RPA of 3.9m will be required to protect the root zone of this tree.
- 3.2.6 Tree T6 is an over mature Hawthorn, possible a residual of an original hedgerow in this location. It has poor canopy structure with a tree house apparently being constructed within the lower branch divisions. There are major bark wounds on trunk and major dead wood visible in the canopy. The canopy is twisted (strangled) and has become irregular due to age and damage. It is shown in Photograph 5. No nests are visible but this tree has potential to provide bat roosting opportunities. This tree is classed in category R and should be removed after being inspected for roosting bats.
- 3.2.7 Tree T7 is an over mature Hawthorn located close to T6 and therefore possibly also a residual of an original hedgerow. It has a poor, interlocked canopy structure. Major bark wounds are visible on the trunk and major dead wood is visible in canopy. The canopy has become irregular due to age, over-shadowing and damage. Photographs 4 and 6 show this tree. No nests are visible but this tree has the potential to provide bat roost opportunities. This tree is classed in category R and should be removed after being inspected for roosting bats.
- 3.2.8 Tree T8 is an established Hawthorn located at the corner of the site adjacent to the entrance road. It is encroaching on the boundary fence. The trunk comprises multiple stems grafted into a single trunk with significant basal regeneration occurring. It has a small, balanced but rather crowded canopy with poor shape and structure. Minor dead wood is visible in the lower canopy. It is shown in Photograph 7. There is no indication from ground level of any nesting birds or any obvious sign of suitable bat roost opportunities. This tree may be retained or could be removed as it is placed in category C2. If retained, an RPA of 5m. will be required to protect the root zone of this tree.
- 3.2.9 Tree T9 is a young Hawthorn growing adjacent to the foundation of a garage on the site boundary. It is competing with better quality trees. There is no indication from ground level of nesting birds and little obvious sign of suitable bat roost opportunities at the time of the survey. This tree should be removed to thin out and improve the canopy in this location.
- 3.2.10 Tree T10 is an established Maple growing approximately 3m in from the boundary of the site and providing good landscape screening. It has a single main trunk that is upright and supports a slightly unbalanced openly irregular canopy that is missing numerous branches on the east side due to shading / crowding. It is shown in Photographs 7 and 9. Whilst the canopy is not even this tree is recommended for retention and placed in category B2. An RPA of 4.9m is required to protect the root zone of this tree.
- 3.2.11 Tree T11 is a Cherry. Located close to the east boundary of the site, this tree has a single trunk supporting an ascending even canopy that provides good landscape



screening. There is some moderate dead wood visible in lower canopy but this is not significant. This tree is shown in Photograph 8 and 9. This tree may be retained or could be removed as it is placed in category C2. If retained, an RPA of 4.2m will be required to protect the root zone of this tree.

3.2.12 Tree T12 is a young, upright, single trunk Birch tree located 1m from boundary fence that has a light, open, narrowly headed canopy. A Beech tree is growing through the Birch canopy and competing with the Birch. The tree is shown in Photographs 8 and 9. The Birch may be retained or could be removed as it is placed in category C2. If retained, the Birch will RPA of 2.2m to protect the root zone of this tree. The Beech tree should be removed.

3.2.13 Trees T13 and T14 are very similar. Both are severely pollarded over-mature Hawthorn trees in poor condition. Both are being overgrown by Honeysuckle. The canopy of both trees is very limited and slowly regenerating. Significant dead wood visible on both trees and subsequently both are placed in category R and recommended for removal. These trees should be checked for roosting bats immediately prior to removal.



4 Tree Management

4.1.1 Any retained trees and woodland areas will need to be adequately protected during works. Measures to protect these should follow the best practice principles set out in BS5837: Trees in Relation to Construction Recommendations (2005). Prior to any construction or development work proceeding, the RPA's of individual trees to be retained should be marked out using the distances provided in the table within Appendix 1. Marking out should be completed by a person with arboricultural or horticultural expertise as individual trees will have root zones that may be affected by local conditions and allowances will need to be made to accommodate this. The best practice principles have been broadly summarised below.

- All trees retained adjacent to the site should be protected by barriers or ground protection around the calculated Root Protection Area (RPA) and as indicated on any Tree Constraints Plan (TCP) that may be produced in association with the assessment (Clauses 5 and 7 of BS5837).
- Fencing should be erected prior to commencement of construction and before demolition including erection of any temporary structures. Once set up fences should not be removed or altered without prior consultation with the arboricultural advisor.
- Arrangements should be made for an arboriculturist to supervise works and tree protection where trees are particularly vulnerable or sited close to access points.
- Pre-development works may be undertaken prior to the installation of fencing with the agreement of the local planning authority.
- All tree works should follow best practice procedures as set out in BS 3998 (1989). All trees should be maintained in good condition on site and be inspected annually (where overall condition requires) or every 2 years and after any major storm events, with safety a priority.
- Fencing should be clearly visible and suitable for the location, type and proximity of construction activity.
- It may be appropriate on some sites to use temporary site offices as components of the protection barriers.
- Where it has been agreed and included within the tree schedule, construction access may take place within the RPA if suitable ground protection measures are in place. This may comprise single scaffold boards over a compressible layer laid onto geotextile materials for pedestrian movements. Vehicular movements over the RPA will require the calculation of expected loading and may require the use of proprietary protection systems.
- Once areas around trees have been protected by fencing, any works on the remaining site area may be commenced providing activities do not impinge on protected areas. Notices should be placed on fencing to indicate that operations are not permitted within the fenced area.
- Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles, jibs, booms etc where this is in close proximity to retained trees.



- Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree bole. No concrete mixing should be done within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.
- No fires will be lit where flames are anticipated to extend to within 5m of tree foliage, branches or trunk, taking into consideration wind direction and size of fire.
- Notice boards, telephone cables or other services should not be attached to any part of a retained tree.
- Where it is deemed necessary to operate a wide or tall load, plant bearing booms, jibs and counterweights or other such equipment, as part of construction works, and such equipment would have potential to cause injurious contact with crown material i.e. low branches and limbs, of retained trees within the RPA fencing, it is best advised that appropriate, but limited tree surgery, be carried out beforehand to remove any obvious problem branches. This is classed as 'Facilitation Pruning', BS 5837 (2005) 9.4.2 and 11.2.1. Any such pruning should be undertaken in accordance with a specification prepared by an arboriculturalist.
- It is advised that a Pre-Commencement Site Meeting is held with contractors who are responsible for operating machinery, as described above. To firstly highlight the potential for damage occurring to tree crowns and to ensure that extra care is applied when manoeuvring machinery during such operations within close proximity to retained trees to avoid any contact.
- In the event of having caused any such branch or limb damage to retained trees it is strongly recommended that suitable tree surgery be carried out, in accordance with BS 3998 (1989) Recommendations for Tree Work, to correct the damage, upon completion of development.
- All of the above precautionary measures should be applied to minimise the effect of any damage to long-term tree health and safety.



5 FIGURES



6 APPENDIX 1 TREE SCHEDULE



Key:	<u>Measurements</u>	<u>Age – Class</u>	<u>Overall Condition</u>	<u>BS 5837 2005 : Cascade Chart for Quality Assessment/Retention Category</u>	<u>Symbols:</u>
	MS – Multi-stemmed	YNG-MAT-Young Mature	G – Good	A – High	< = less than
	Ht - Height in metres	SM – Semi-mature	F – Fair	B – Moderate	~ = approximately
	Stem – Stem Diameter at 1.5m in mm	Mat – Mature	P – Poor	C - Low	> = greater than
	Crown – Crown spread in metres	OM – Over mature	D - Dead	R – Trees for Removal	
	TD - Trunk division (height in metres)			Sub-categories: 1 = mainly arboricultural values 2 = mainly landscape values 3 = mainly cultural values.	
RPA = Root protection area (equivalent to a circle with a radius 12 x the stem diameter for single stem trees and 10 x the basal diameter for trees with more than one stem arising below 1.5m above ground level).					



Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m (mm)	Canopy Spread (m)	Height of Crown Clearance	Age Class	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m ²)	RPA Radius (m)
T1	BIRCH (Betula pendula)	13	285	4.25	1	M	G	Mature Birch located very close to the north perimeter of the site offering a well established canopy screen. A single upright trunk supporting an open, evenly balanced canopy with pendulous habit common to the species. Minor dead wood is visible to lower branches. No nests or potential bat roost opportunities visible. Photograph 3.	Located at the boundary of the site. Providing effective screening within the local landscape. PROTECT AND RETAIN as appropriate.	B2	36	3.40
T2	MAPLE (Acer platinoides – Norway Maple)	12	MS 355@GL	5	4	M	F/G	Norway Maple (possible hybrid with Sycamore), multi-stemmed from base with two major well balanced trunks supporting an openly irregular canopy that is heavy to the South side. Minor dead wood is visible in the canopy and basal regeneration is evident. Ash and Maple saplings are providing low canopy cover. Photograph 3. No indication from ground level of nesting birds or suitable bat roost opportunities at the time of the survey.	Located at the boundary of the site. Providing effective screening within the local landscape. Requires removal of saplings establishing under canopy. PROTECT AND RETAIN as appropriate.	B2	57	4.2



Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m (mm)	Canopy Spread (m)	Height of Crown Clearance	Age Class	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m²)	RPA Radius (m)
T3	MAPLE (Acer platinoides - Norway Maple)	9	MS 280@ G/L	4	0	SM	F/P	Norway Maple (possible hybrid with Sycamore), multi-stemmed from base with two major trunks favoring slightly to the south supporting an openly irregular canopy that is not well balanced. Structurally this tree has some significant dead wood, poor shape and is partly overshadowed by adjacent trees. Basal regeneration is evident. An established Cypress hedge in the neighboring property screening and dominating the north aspect of this tree. Photograph 3. No indication from ground level of nesting birds or suitable bat roost opportunities at the time of the survey.	A tree of poor quality and shape. The Cypress hedgerow behind (north) provides good landscape screening and would benefit from the removal of this tree. Consider REMOVAL or significant REDUCTION	C2	35	3.3
T4	MAPLE (Acer platinoides - Norway Maple)	9	310	4	3.5	SM	F	Norway Maple (possible hybrid with Sycamore) located close to the site boundary. It has a single trunk supporting a well balanced, openly irregular canopy with minor dead wood. Lower branches have been removed. An established Cypress hedge is present to the rear (north) side reducing the canopy on this side. Photograph 3. No indication from ground level of nesting birds. Little obvious sign of suitable bat roost opportunities at the time of the survey.	A tree of fair quality and shape. The Cypress hedgerow behind (north) provides good landscape screening and would benefit from the removal of this tree. Consider REMOVAL or significant REDUCTION.	C2	43	3.7



Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m (mm)	Canopy Spread (m)	Height of Crown Clearance	Age Class	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m ²)	RPA Radius (m)
T5	MAPLE (<i>Acer platinoides</i> – Norway Maple)	7	330	4	3	M	F/P	A single trunk supporting a broadly ascending canopy, irregular in places, that is unevenly balanced favoring the west. Significant Laurel undergrowth. Major wound on the trunk is healing. Significant dead wood visible in canopy. Photograph 4. No indication from ground level of nesting birds or suitable bat roost opportunities at the time of the survey.	This tree is not in good condition and is one three with interlocked canopies. It provides minimal landscape screening effect. Consider REMOVAL or REDUCTION to improve shape and health.	C2	49	3.9
T6	HAWTHORN (<i>Crataegus monogyna</i>)	6	420	3.5	3	OM	P	An over mature Hawthorn, possible a residual of an original hedgerow. Poor canopy structure with a tree house being constructed. Major bark wounds on trunk and major dead wood visible in canopy. Canopy is twisted (strangled) and has become irregular due to age and damage. Photograph 5. No nests visible but has potential to provide bat roost opportunities.	REMOVE. Consider inspecting for roosting bats and nesting birds prior to felling. (WCA 1981 rev.)	R	N/A	N/A



Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m (mm)	Canopy Spread (m)	Height of Crown Clearance	Age Class	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m ²)	RPA Radius (m)
T7	HAWTHORN (Crataegus monogyna)	5-6	380	3	3	YNG	P	An over mature Hawthorn, possible a residual of an original hedgerow. Poor canopy structure. Major bark wounds on trunk and major dead wood visible in canopy. Canopy is twisted (strangled) and has become irregular due to age and damage. Photographs 4 and 6. No nests visible but has potential to provide bat roost opportunities.	REMOVE. Consider inspecting for roosting bats and nesting birds prior to felling. (WCA 1981 rev.)	R	N/A	N/A
T8	HAWTHORN (Crataegus monogyna)	6	MS 420@GL	4	1	M	P	AN ESTABLISHED Hawthorn located at the corner of the site adjacent to the entrance road. It is encroaching on the boundary fence. Trunk comprises multiple stems grafted into a single trunk with significant basal regeneration occurring. Small, balanced but crowded canopy with poor shape and structure. Minor dead wood visible. Photograph 7. No indication from ground level of nesting birds. Little obvious sign of suitable bat roost opportunities at the time of the survey.	This tree is not in good condition and is interlocked with canopies of better quality trees. It provides minimal landscape screening effect. Consider REMOVAL or REDUCTION to improve shape and health.	C2	78	5



Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m (mm)	Canopy Spread (m)	Height of Crown Clearance	Age Class	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m ²)	RPA Radius (m)
T9	<i>HAWTHORN</i> (<i>Crataegus monogyna</i>)	4	MS 190@GL	3	2	SM	P	Young hawthorn growing adjacent to the foundation of a garage on the site boundary. Competing with better quality trees. Minor dead wood visible. No indication from ground level of nesting birds. Little obvious sign of suitable bat roost opportunities at the time of the survey.	Consider REMOVAL	R	N/A	N/A
T10	<i>MAPLE</i> (<i>Acer platinoides</i> – <i>Norway Maple</i>)	8	410	5	3	SM	F	Established Maple growing approximately 3m in from the boundary of the site and providing good landscape screening. Single main trunk upright supporting an unbalanced openly irregular canopy missing numerous branches on the east side due to shading / crowding. Photograph 7 and 9.	Located close to the boundary of the site. Providing effective screening within the local landscape. Requires removal of competing trees to improve shape of crown. PROTECT AND RETAIN as appropriate.	B2	76	4.9
T11	<i>CHERRY</i> (<i>Prunus avium</i>)	6	355	4	3	M	F	Located close to the east boundary this tree has a single trunk supporting an ascending even canopy that provides good landscape screening to this part of the site. Some moderate dead wood visible in lower canopy but not significant. Photograph 8 and 9.	A reasonable quality tree with a good shape providing good landscape screening. PROTECT and RETAIN if practical	C2	57	4.2



7 APPENDIX 2 PHOTOGRAPHS



Photograph 1 – General Overview of the site being surveyed



Photograph 2 – General overview of the site being surveyed



Photograph 3 – Left to right T1 (Birch) T2, T3 and T4 (Maples)



Photograph 4 – T7 (left) and T5 (right)



Photograph 5 – T6: Over mature Hawthorn (*Crataegus monogyna*)



Photograph 6 – T7: Close up of over mature Hawthorn.



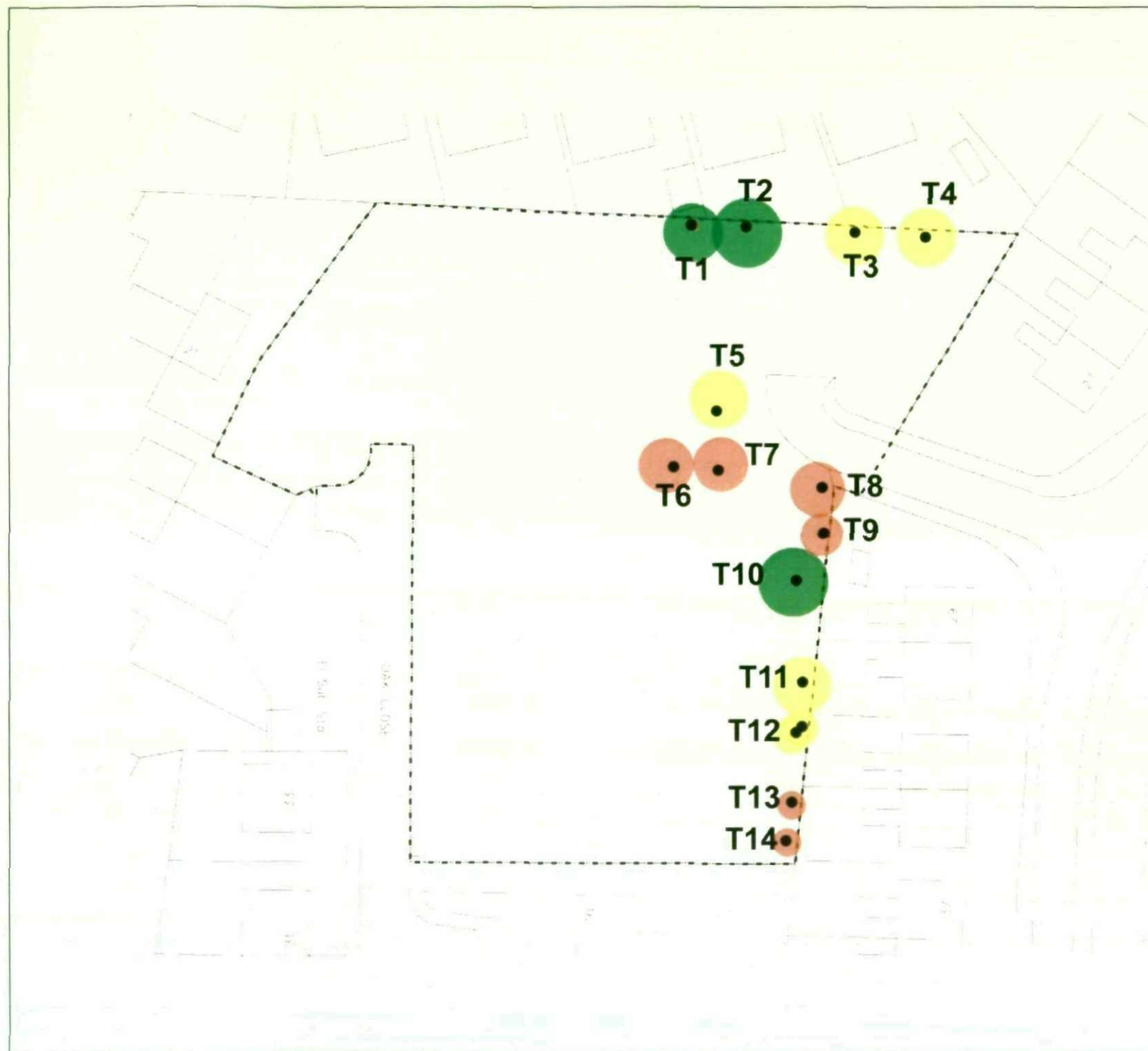
Photograph 7 – T8 and T10 (T9 screened by T10). Hawthorn and Norway Maple



Photograph 8: Cherry T11 with Birch T12 to rear.



Photograph 9: Reverse view of Birch T12, Cherry T11 and Maple T10



Legend:



Tree



Category B1 or B2



Category C1 or C2



Category R



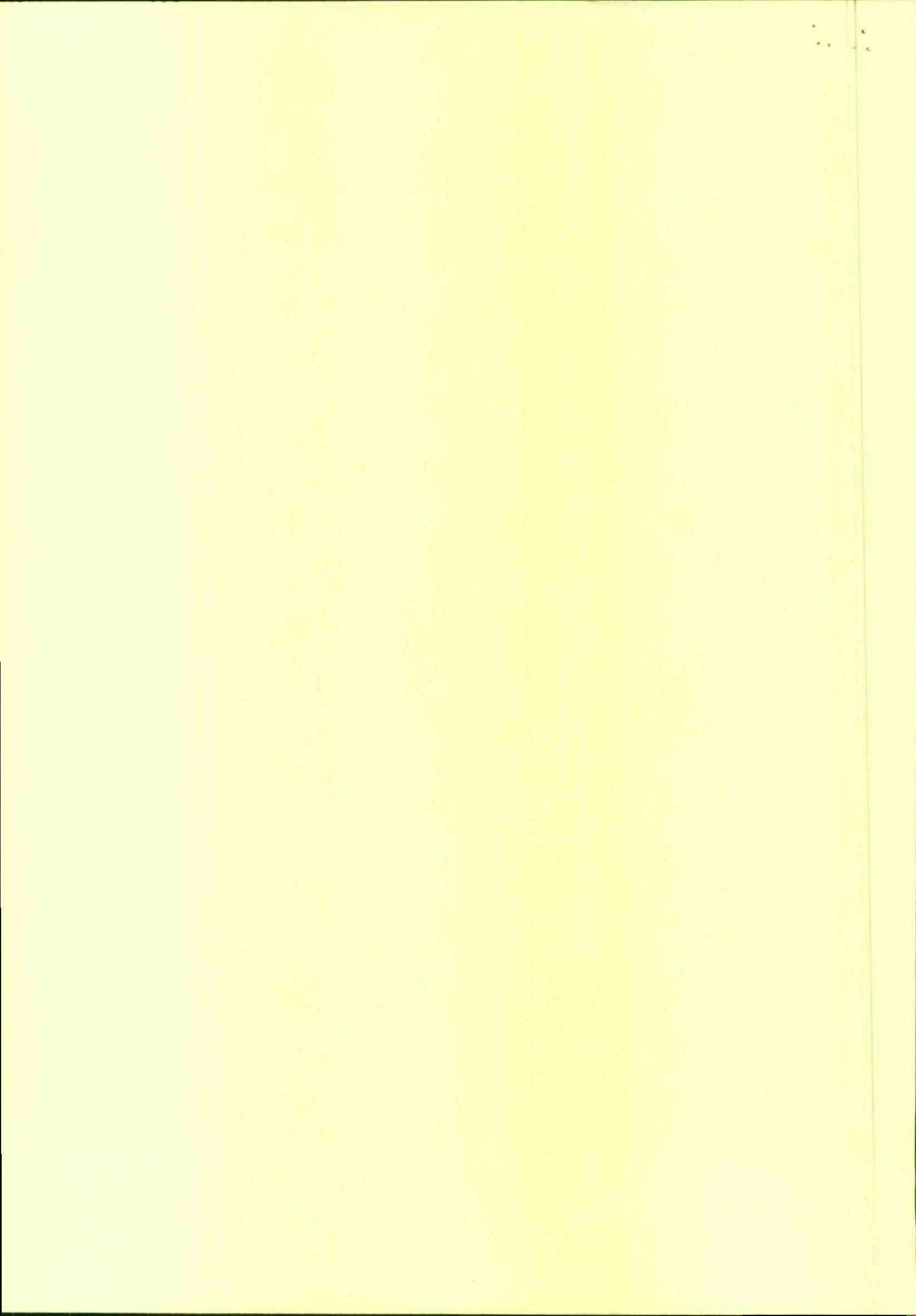
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Oak Tree Close

Figure 2:
Tree Survey

Date:
June 2010

ECUS Ref:
2673



Sent: 17 June 2010 17:12
To: Tom Stephenson
Subject: Re: Oak Close - Tree Survey

Tom

T10 is located adjacent to the car parking / garage access. The majority of the root protection zone, about 65% is clearly outside the development area and should be easily protected. A significant proportion that is inside the development area is landscape / grass adjacent to the parking / access area. This can also be quite easily protected if the developer is careful. Worst case scenario is that about 15% of the potential root protection area may be lost. This should not compromise the vitality of the tree and I think it likely that with additional actions such as provision of good rooting areas and possibly minor crown lifting the tree should be able to be retained.

Chris
