

Saxby Hall, Saxby All Saints

TREE SURVEY REPORT

25th July 2016.



Prepared by: David Brown BSC (HONS), MICFor

Saxby Hall, Saxby All Saints

TREE SURVEY REPORT 2016.

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General inspection notes and limitations

The tree was inspected on the 25th July 2016 by Mr D. Brown BSc (HONS) MICFor.

This inspection was carried out at ground level using visual assessment only of the tree canopy, stem and rooting area. No digging or drilling was carried out.

Prioritised recommendations for tree work are provided to address current tree condition and growth circumstances in the light of assessed risk of structural failure and target value.

Dimensions are approximate and are given in either metres or centimetres as indicated. No documented information has been provided regarding the history of rooting disturbance or severance or changes in local ground conditions (soil levels, drainage patterns etc.) or the location of underground services.

The assessment is of preliminary nature and as such no internal trunk decay detection devices or other invasive tools to assess tree condition have been employed. Nor have there been any soil excavations, soil or rooting sampling undertaken.

This assessment is time limited and recommendations relate to conditions at the time of inspection. Tree growth is continual and the effects of any debilitating factors may be progressive. Due to these dynamics, periodic tree assessments are necessary.

Other Considerations

Dead wood offers valuable habitat for birds and insect populations. While its removal may be required when posing unacceptable levels of risk, where feasible dead wood may be retained in internal woodland areas when posing limited threat. Weight reduction of dead wood may be considered in certain cases in preference to entire removal. Similarly stumps should be left where feasible instead of complete removal.

The trees provide mutual protection in a canopy that has high forest character. The disturbance of the canopy should be kept to a minimum in order that individual crowns are not isolated and prone to excessive exposure. Monitoring of the canopy to assess the response of retained trees to changes in growth conditions and to identify any significant mechanical defects should follow any works undertaken

Any recommended tree work will require the approval of the local planning office and should be undertaken by a suitably approved Arboricultural contractor to a minimum standard of BS 3998:2010.

Tree Survey

Client: Mr C. Barton

Location: Saxby Hall.

Date of Inspection: 25th July 2016.



Tree Tag	REF No	Species	Single/Group	Age Class	Height Class Metres			DBH cms @ 1.3m	Crown Radius	Condition										Recommendation	Action Priority	Comments (Observations)	Bats	Pricing £			
					< 5	6-10	11-20			20 +	Y / MM / M / OM	Decayed Trunk	Damaged Rooting	Crown Dieback	Deadwood	Dangerous Branch Limbs	Wound/Cavity	Fungal decay	Dead						Other	Failure Potential	Size of Defective Part
1	SE 00032 19567	Cedrus Atlantica	S	M > OM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	148	9.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	3	4	9	DW RB RSL EW2 CT2	4	DW - Remove major deadwood and snags	<input type="checkbox"/>	
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	6.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					RAF		RB - Remove suspended or broken limb.	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	S	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							RSL - Remove suspected/fault limbs	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	8.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							EW 2 - 20% selected end weight reduction.	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	W	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							CT 2 - Crown thinning 20%-29%	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SW	9.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							RAF - Rebalance and formatively prune crown.	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									<input type="checkbox"/>	
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									<input type="checkbox"/>	
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									<input type="checkbox"/>	
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									<input type="checkbox"/>	

Additional notes, observations and recommendations.

Tree No 1 *Cedrus Atlantica* (Atlas Cedar)

Height 24 metres

Distance from buildings 5.8 metres from extension and a further 8.5 metres from main property.

Average crown spread 15.5 metres

Age estimate approximately 150 – 200 years (Mature)

DBH Trunk diameter at 1.3metres above ground level: - 148cm

Description The tree is a mature Atlas Cedar (*Cedrus atlantica*) having a large asymmetrical crown spread with a number of large limb failures over relatively recent years and located close to the client's property. The tree has a large and robust stem and currently there is no visible evidence of decay either at the base of the bole or higher up the main stem. The majority of the tree's crown is within the top 10 metres of the tree. The tree is relatively exposed to any prevailing winds and there is limited potential for protection and shelter from other trees as these are located at considerable distance from the Cedar.

History With reference to previous limb failures noted from the tree report of November 2004, there were at least four locations within the crown of the tree in particular: -

- Major limb failure at approximately 8 metres on the west side of the tree.
- Major limb failure at approximately 11 metres on the north west side of the tree, this appeared to be the most recent.
- Major limb failure at approximately 14 – 15 metres on the east side of the tree and near the property.
- Failed limb at 10 metres on the east side of the tree

Observations The tree is relatively exposed and as such is vulnerable to any prevailing winds, this is a tree species that has a higher than normal potential for limb failure.

The Cedar group of species has a growth related weakness and a predisposition to lose large limbs due to a variety of climatic and environmental factors e.g. mechanical stresses caused by vigorous wind movement. There is slight flaring at the buttress mainly due to the balancing of the high crown.

Also, evergreen trees with horizontal branching habit can have a tendency to limb failure due to weight of heavy snow.

Other more specific factors which may have led to limb failure in this particular situation would include: lack of additional shelter, proximity to property e.g. which may increase velocity of the wind, heavy snow damage, other limb losses may expose other weaker limbs to damage, Cedar trees' inclination to lose limbs due to generic weaknesses. Other climatic and environmental stresses e.g. drought and tightly mown sward at the base of the tree.

Recommendations

First limb stub at 320° should be cut back to the main stem collar, slightly to the west of this is a previously severed limb, which is showing signs of occluding albeit very slowly.

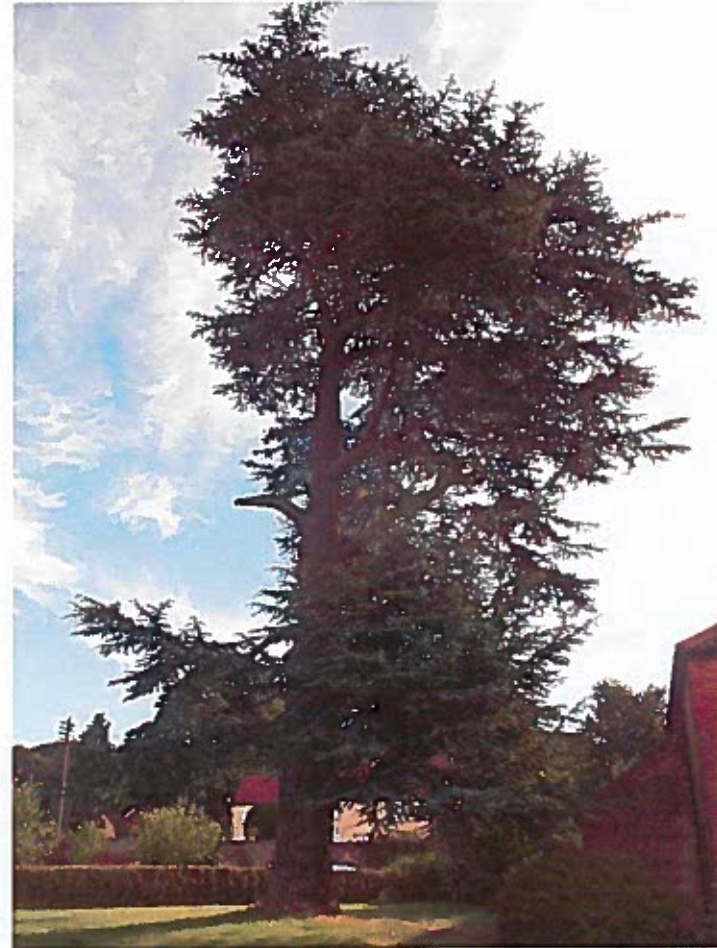
Second limb stub again is to be cut back to main stem collar above, this to reduce deadwood. The two stubs (fractured limbs) should be pruned back to correct branch collar target points e.g. back to the main stem – this to avoid any potential for further decay.

Eastern limb (Photo shows severed branch) should be reduced back to main scaffold limb with end weight reduction to the remainder.

Third (at 230°) southern limb from ground level - reduce by 20% then rebalance and reshape. Seventh scaffold limb (at 200°) of 45cm diameter (est.) extends from the main stem by 90 centimetres then divides into two main laterals, at this point the union is weak and shows signs of dividing, in order to allivate pressure at this point the laterals should be end weight reduced by 20%.

Overall the main portion of the tree's crown needs to be thinned by 20% - 29% to include the removal of deadwood and snags, to allow free passage of the prevailing wind throughout the crown, thereby reducing the wind resistance within the crown. Rebalance and formatively prune the crown in context of the tree's existing shape and form.

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25th July 2016.**



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View from West

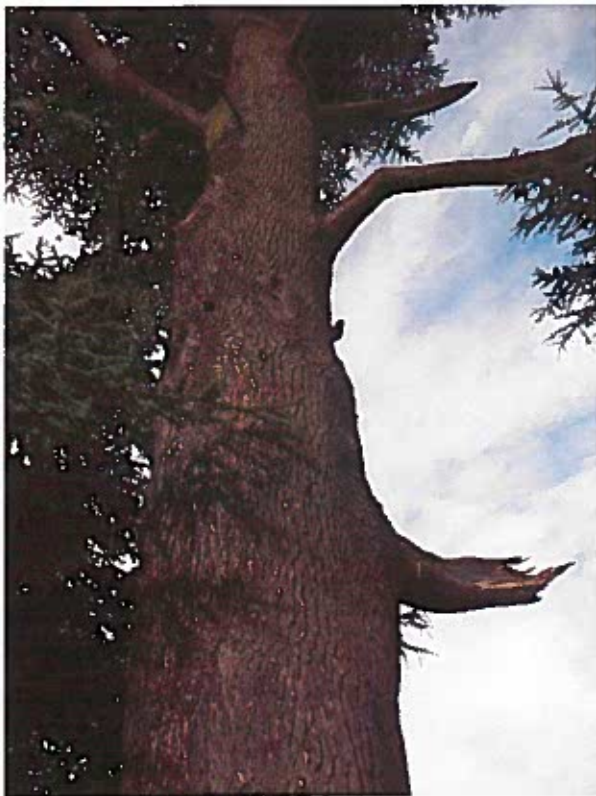


View from north

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Saxby Hall, Saxby All Saints. Tree Survey. 25th July 2016.



1st and 2nd stubs



Seventh scaffold limb showing weak union.

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Severed eastern Limb

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Severed Eastern Limb



Internal

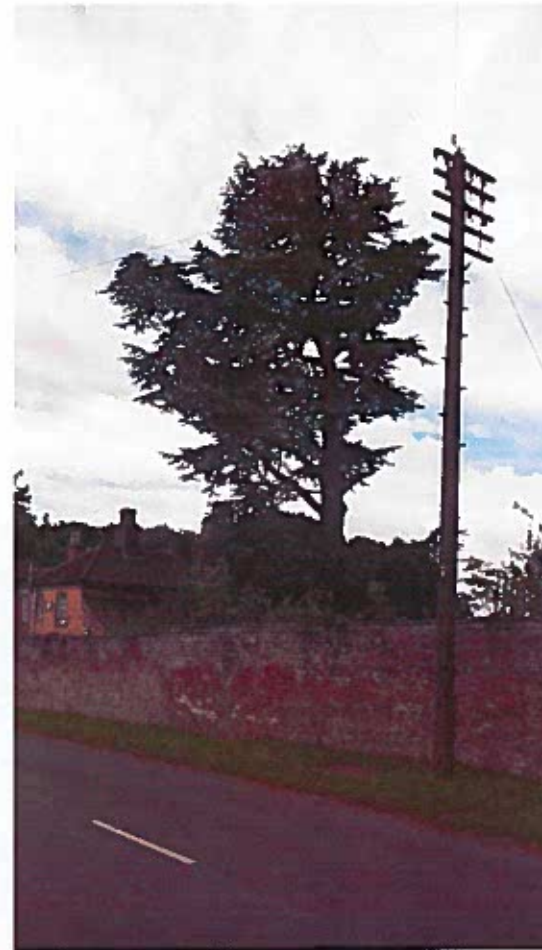
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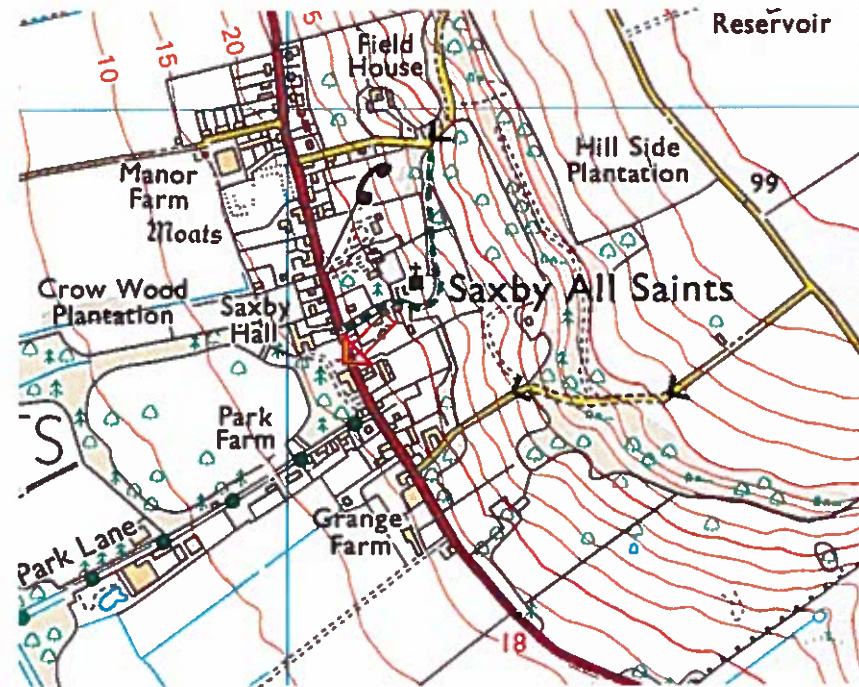
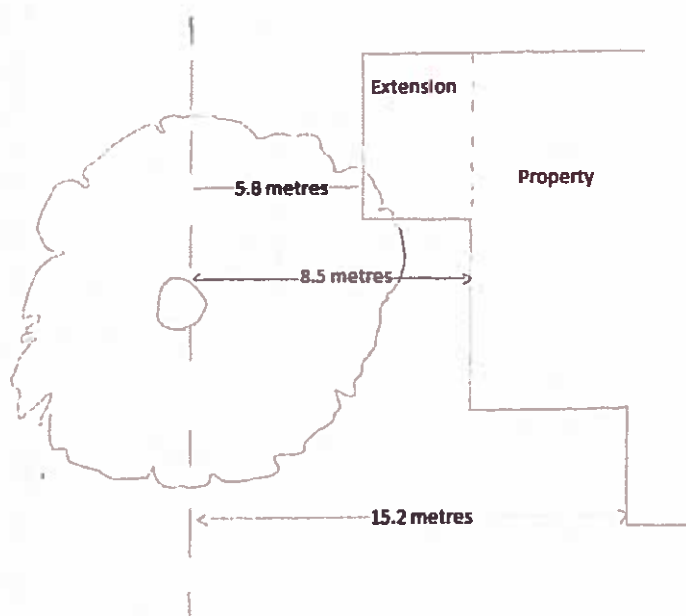
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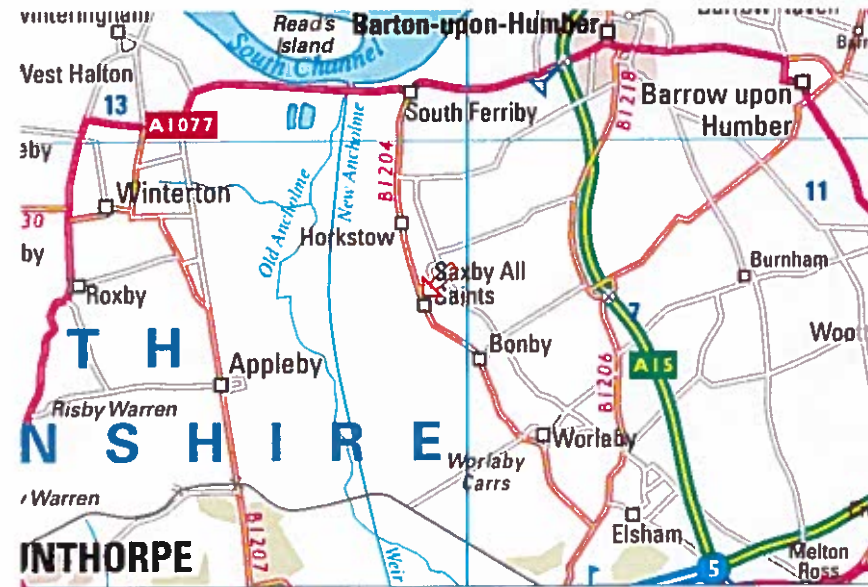


Saxby All Saints – Location of tree.



Saxby All Saints – Location

- OS X (Eastings) 499092
- OS Y (Northings) 416557
- Nearest Post Code DN20 0QD
- Lat (WGS84) N53:38:1(53.636162)
- Long (WGS84) W0:30:10 (-0.502795)
- Lat,Long 53.636162,-0.502795
- Nat Grid SE 990 165
SE 99092 16557



Appendix

Glossary:

Y	Young	Within first third of expected lifespan.
MM	Middle Mature	Within second third of expected lifespan.
M	Mature	Within final third of expected lifespan.
OM	Over Mature	Within decline.

Hazard Rating

The idea with the hazard (or risk) rating is to summarise the information about a tree and target into an overall hazard rating, assigning a value for each three components; failure potential, size of defective part and target rating.

Part Most Likely to Fail

From the defects identified a decision needs to be made which part of the tree is the most likely to fail e.g. major basal decay with the presence of Ganoderma then the stem or buttresses. Even with a healthy tree a part needs to be recorded based on the species e.g. poplar prone to snapping out in high winds would be the 'stem'.

Failure Potential

Failure potential identifies the most likely failure and rates the likelihood that the structural defect/s will result in failure **within the inspection period**. The ratings are as follows and are listed on the form in a drop down list 1-4:

1. **Low Defects** are minor (e.g. twigs dieback, small wounds with good callus growth)
2. **Medium Defects** are present and obvious (e.g. cavity encompassing 10-25% of circumference of the trunk, co dominant stems without included bark)
3. **High** Numerous and/or significant defects present (e.g. cavity encompassing 30-50% of circumference of the trunk, multiple pruning wounds with decay along a branch)
4. **Severe Defects** are very severe (e.g. heart rot decay brackets along the main stem, cavity encompassing more than 50% of the trunk)

Size of Defective Part

Size of defective part rates the size of the part most likely to fail. The larger the part that fails, the greater the potential for damage. Therefore, the size of the failure affects the hazard potential. The ratings are as follows and are listed on the form in a drop down list 1-4.

1. Most likely failure **less than 6 inches** in diameter at its largest point
2. Most likely failure **6-18 inches** in diameter at its largest point
3. Most likely failure **18-30 inches** in diameter at its largest point
4. Most likely failure **greater than 30 inches** in diameter at its largest point

Target Rating

Target rating rates the use and occupancy of the area that would be struck by the defective part. This may well require discussion with the client to establish access and movement throughout the site. The ratings are as follows and are listed on the form in a drop down list 1-4.

1. Occasional use – e.g. jogging/cycling trail
2. Intermittent use – e.g. picnic area, day-use parking
3. Frequent use – e.g. seasonal camping ground, storage facilities
4. Constant use – e.g. structures, year round use for a number of hours each day, residences

Hazard Rating

The hazard rating is then the addition of the 3 ratings to get an overall hazard rating:

Hazard Rating = Failure Potential + Size of Part + Target Rating

Hazard ratings give an indication of the risk, but cannot be looked at without due consideration to the individual situation. A tree may receive a 'hazard rating 9' which would appear pretty high, but it may have no target e.g.

Failure Potential	4	Major basal decay
Size of Part	4	Whole tree will come down
Target Rating	1	Located in the middle of a field with no public access.
Hazard Rating	9	No action because no target present

Recommendation Codes

DW	Remove major deadwood and snags.
RB	Reduce suspended or broken limb.
RSL	Remove suspended/fault limbs.
EW 2	20% selected end weight reduction.
CT 2	Crown thinning 20% - 29%.
RAF	Rebalance and formatively prune crown.

Caveats & Disclaimers

- a) This report is prepared solely and exclusively for the person to whom it is addressed and its contents must not be divulged to third parties without the written consent of Tilhill. Any third party referring to this report or relying on the information contained therein does so entirely at their own risk.
- b) The report relates only to those trees growing within the areas of survey, either as shown on the enclosed plan or as listed in the tree schedule. Trees outwith the survey area were not inspected.
- c) The findings and recommendations contained in this report are valid for a period of 6 months from the date of survey. Trees are living organisms subject to change - it is strongly recommended that they are regularly inspected for reasons of safety.
- d) The recommendations relate to the site as it exists at present, and to the current level and pattern of usage. The degree of risk and hazard may alter and the site may require re-inspection and appraisal.
- e) No guarantee can be given as to the absolute safety or otherwise of any individual tree. Extreme climatic events can cause damage to (or make unsafe) apparently healthy trees.
- f) Trees were inspected from the ground.
- g) Numerous potential defects that may affect a trees health and safe useful life may not be detectable dependant upon the timing of the survey. Surveys prior to leaf flush cannot judge either the extent or size of the foliage and the effect of either abiotic or biotic factors on such foliage. Additionally the decay mechanism that occurs in trees is often governed by wood decay fungi, these may only produce external fruiting bodies annually often from late summer through autumn and they themselves then decay during winter. Therefore during winter and spring surveys, external symptoms may not be visible of decay that is occurring within a tree.
- h) Trees were inspected externally: no instruments (such as ultrasound or resistographs) were used to examine the tree internally.
- i) No underground or root system inspections were carried out and Tilhill were not aware of any underground conditions of compaction or changes in ground levels or aeration or drainage which may affect the trees, nor of any services installations or any other excavations which may previously have taken place and which may have caused damage to root systems
- j) No investigation has been carried out to determine whether the land under report is or has been in the past contaminated or polluted by any substances or organisms however occurring. Our report and any recommendations is therefore on the basis that all the land and its environs are free from any such contamination or pollution and that no such polluting materials will be introduced onto the site or used during any construction works on the site.
- k) Survey based on information and maps supplied by the client relating to site boundaries, hazards, utilities etc. No responsibility can be accepted relating to the accuracy of information received. No additional investigation was undertaken with regard to statutory designations, ie TPO, conservation areas, SSSI's other than information and documents supplied by the client. Approval for felling or other work may require authorization; such authorisation is not the responsibility of Tilhill and must be obtained by the client before felling or cutting commences.