

Tree Hazard Evaluation

For Mr. R. D'Costa

Property:

85 Sutherland Close, Ascot, SL5 8TE

Landowner: Mr. R. D'Costa

Job Reference: 03373R

Consultant: Keiron Hart (BSc Hons, C.Env, F.Arbor.A, MICFor, MEWI)

Survey Date: 1st September 2020

Report Date: 3rd September 2020

Scope of Report

To carry out a detailed tree inspection of 2 x Sweet Chestnut trees and assess condition, risk, and hazard. To identify appropriate tree works. To identify the recommended year for re-inspection based on tree condition and land use.

Note

Trees are living organisms and any assessment of the biological and mechanical condition is only correct on the date of assessment. Every effort has been made to give the maximum longevity to our recommendations. However, circumstances can change rapidly due to factors such as extreme weather events and rapid fungal infection. All observations were made from ground level.

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1. The Law

In its simplest terms the duty is to do what is reasonable and not be negligent. An overview of some statutory and case law is shown below:

Statutory Law

The following statute law is relevant to the risk of damage and injury posed by trees:

Health & Safety at Work Act 1974 s.2 & 3

Occupiers Liability Acts (1957 & 1984)

Management of Health and Safety at Work Regulations 1999

Case Law

The 'Acts' above are supported by case law establishing interpretation for future cases:

Noble -v- Harrison 1926

Donoghue v Stevenson 1932

Chapman v Barking & Dagenham London Borough Council 1997

Poll v Bartholomew 2006

[Stagecoach South Western Trains Ltd v Hind and another 2014](#)

Cavanagh v Witley Parish Council 2018

Guidance issued by the Health & Safety Executive recognises that responsibilities differ relative to available resources and tree numbers managed. Therefore the duty of care placed on larger landowners differs from those of an individual homeowner.

Further information is available and 2 of the main publications are [HSE SIM Management of Risk from Falling Trees](#) and the National Tree Safety Group publication [Common Sense Risk Management of Trees](#).

2. Visual Tree Assessment

Our inspection took the form of Visual Tree Assessment (VTA). This refers to the process used for identifying the condition of the inspected tree. The tree was inspected in a methodical manner. The inspection seeks to identify the presence of visual symptoms. These help the inspector identify whether remedial works are required to abate or manage identified defects. The inspection focuses on the **mechanical** and **biological** condition of the tree.

The overall condition of the tree is inspected from a distance approximately equivalent to the height of the tree (where space permits). This seeks to identify the overall condition of the tree, canopy shape, presence of leans, previous branch failure, weak branch unions, pruning history etc.

The area around the base of the tree is then inspected to identify whether ground disturbance has occurred. This could be in the form of mechanical damage to roots or identifying evidence that the root system has been weakened. In the event fungi are present these will be noted. An inspection of the stem and branches of tree is then undertaken from ground level. This seeks to identify decay pockets, stem cracks, reactive growth of wood, further decay fungi, bark condition and many other factors associated with VTA. **Note: In this instance we did not have full access to the base of the tree.**

In addition an assessment is made of the suitability of the tree to its location, for example, no defect may be present but branches may be obscuring security lighting.


Only once this assessment is made will any appropriate tree works and the relevant re-inspection year prescribed, based on factors such as target area, tree age, species etc.

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3. Underlying Soil

Soil is an important factor in tree growth. For example clay soils are more able to become waterlogged, which may affect the tree/ root interface. Free draining sandy soils and chalks tend to encourage deeper rooting. :

	<table border="1"> <thead> <tr> <th data-bbox="997 432 1546 504">Soil Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="997 504 1546 976"> <p style="text-align: center;">Bagshot Formation</p> <p>Sand. Sedimentary Bedrock formed approximately 48 to 56 million years ago in the Palaeogene Period. Local environment previously dominated by shallow seas.</p> </td> </tr> </tbody> </table>	Soil Description	<p style="text-align: center;">Bagshot Formation</p> <p>Sand. Sedimentary Bedrock formed approximately 48 to 56 million years ago in the Palaeogene Period. Local environment previously dominated by shallow seas.</p>
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Soil data courtesy of [British Geological Society](http://www.bgs.ac.uk)

4. Site Overview

- 4.1 The property is a detached 5-bedroom house of apparent traditional brick-built construction and dates from 1981.
- 4.2 The current occupants moved into the property in 2006.
- 4.3 They advise that the detached garage was constructed before their purchase of the property.
- 4.4 They have not indicated issues with the trees but have had some minor crown lifting and selected branch shortening undertaken on T1 previously.
- 4.5 The current owners have concerns regarding the sheer size of the trees relative to the property and neighbours, who have expressed concerns.
- 4.6 The trees are advised as being the subject of a TPO but at the time of writing Royal Borough of Windsor & Maidenhead have not yet responded to our statutory search request.

5. Statutory Protected Status

Conservation Area Status	
Is the site located within a Conservation Area	TBC - unlikely
<p>Notes: All trees larger than 7.5cm diameter at 1.5m above ground level are subject to regulations within a Conservation Area. Exemptions apply for trees which are dead and dangerous but clarification before any tree works is advised. A notification is required in many circumstances.</p>	
Tree Preservation Order Status	
Are inspected trees subject to a TPO?	Yes
Type of TPO	Area
	Individual
	Group
	Woodland
TPO Reference	TBC
Date TPO Made	TBC
<p>Notes: (i) The type and details of any TPO determine which trees are 'protected'. Exemptions apply for trees which are dead and dangerous but clarification before any tree works is advised. An application may be required before undertaking works. (ii) A copy of the TPO has not been made available for inspection. (iii) At the time of writing Royal Borough of Windsor & Maidenhead have not yet responded to our statutory search request protected status advised by client.</p>	

6. Inspection Observations

T1 Sweet Chestnut (*Castanea sativa*)

- 6.1 The tree is a mature example and space inhibited the use of a hypsometer to measure the tree but it appears approximately 18m in height. The tree is located within the rear garden close to the boundary fence.
- 6.2 The basal area has a minor deformity of bark formation at its base but nylon headed hammer soundings suggested there is not decay in this area and there were no open cavities on the lower stem.



Fig 1 – The lower stem area of T1 showed no sign of established decay or evidence the tree is moving on the root plate.

- 6.3 There is a minor pruning wound visible at approximately 3m above ground level and whilst decay will be developing in this area there was no evidence to suggest this was an issue for the tree. We would recommend being vigilant to the potential emergence of any decay fungi around such pruning wounds.

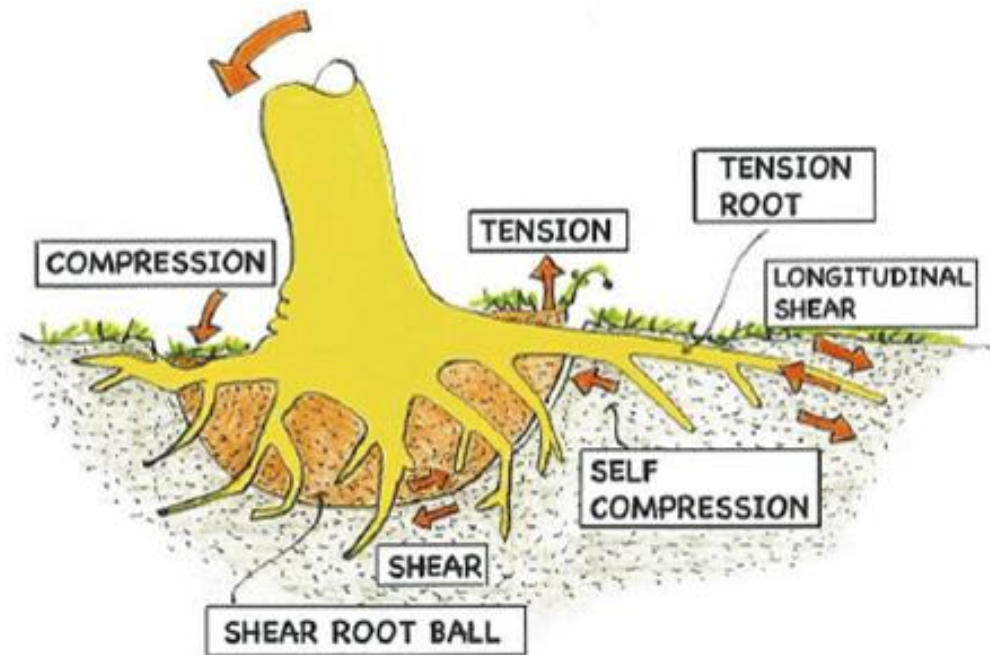


Fig 2 – The root plate of T1 appears normal with the above diagram (Mattheck) showing the likely forces.

- 6.4 The size of the tree and its high-risk location is such that we would recommend the area at the base of the tree be maintained clear of all visual obstructions as this will more readily allow identification of any decay fungi that may appear at the base of the stem.
- 6.5 The tree has been crown lifted previously and as is normal of the species regrowth has occurred. It would be advisable to repeat these works to limit the wound size (as the longer they are left the larger the regrowth branches will become increasing the impact of future works).

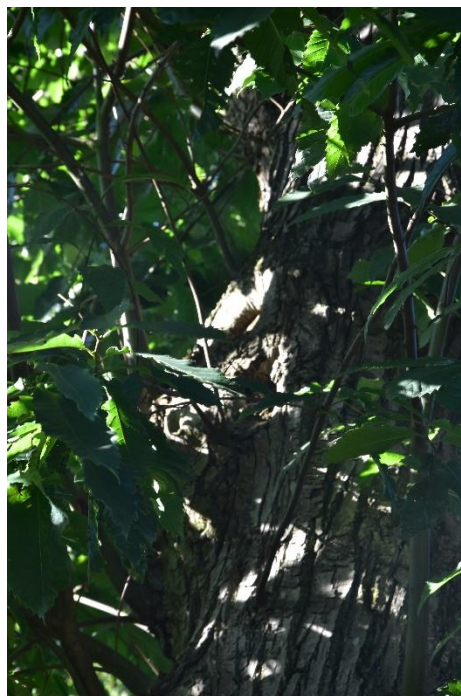


Fig 3 – Image showing previous branch removal wound and associated stem regrowth from prior crown lifting works.

T2 Sweet Chestnut (*Castanea sativa*)

- 6.6 This tree is close to a garage that has been constructed in an area where root damage will have occurred at the time of construction. The tree is smaller in size (12m) and has evidence of stress within the canopy as demonstrated by the presence of smaller leaves, excessive dead wood and in places tip die back and canopy thinning.
- 6.7 The lower stem was not fully accessible for inspection but soundings indicate areas of decay and dead bark could easily be removed in places to reveal a white mycelial mat and the presence of rhizomorphs below the bark. This confirms the tree to be infected by Honey Fungus (*Armillaria* spp).
- 6.8 Honey Fungus (*Armillaria* spp) occurs on a wide host range (Lonsdale 1999). He advises “*In advanced decay, a stringy white rot is evident*”. In terms of the fungal fruiting bodies he states: “*The fruit bodies are brown or honey-yellow toadstools which usually appear in clusters, sometimes singly, on stumps of on the ground over infected roots and at the bases of dead and wind thrown trees. Fruiting occurs mainly in the autumn and the toadstools do not persist long as they are killed by the first frosts*”.
- 6.9 No fungal fruiting bodies of *Armillaria* spp were evident at the base of the tree during my inspection but the exposed decayed wood suggests the extent of decay in this area was likely well established. The significance of *Armillaria* spp infection is such that should decay be extensive in a root system there is a high chance of wind throw (Lonsdale 1999). The nature of *Armillaria* spp infection is that it usually begins in the cambium of the roots and this can lead to above ground symptoms often manifesting themselves as a thinning of the upper canopy of the infected tree. Given the location of the tree relative to people and property and the propensity for failure of infected trees we recommend the removal of T2.
- 6.10 **Risk**
- 6.11 The Health and Safety Executive (HSE) recognise the risks posed by trees. Management of the risk from falling trees (SIM 01/2007/05). **Section 1:** *The risk, per tree, of causing fatality is of the order of one in 150 million for all trees in Britain or one in 10 million for those trees in, or adjacent to areas of high public use.* It continues at 2: *The average risk is firmly in the “broadly acceptable” region of the tolerability of risk triangle published in HSE’s “Reducing Risks Protecting People”.*
- 6.12 They do not define what can be considered a ‘high risk’ zone but it is generally accepted in the field of arboriculture that such ‘high risk’ zones will have some of the following features:
- Frequent occupation by people or vehicles.
 - Permanent structures (such as houses)
 - Use by children.
 - Intermittent high uses (such as temporary sports/ festivals etc. which may bring large numbers of people close to trees at intermittent intervals).
- 6.13 A greater level of commentary on risk is outside the scope of this report but I would comment that the tree is located in a ‘high risk’ zone. This is on the basis that it is within direct falling distance of people and property. It is in this context that the removal of T2 is being recommended as should the tree progress to a failure event there is clear foreseeability (given the presence of Honey Fungus) and liability (given the knowledge of the infection).

6.14 Remedial Works

6.15 We recommend the removal and replacement of T2. Ginkgo and Catalpa are both widely available ornamental trees and are known to show a level of resistance to Honey Fungus. Scope to replant in the location of T2 is limited but during our visit a further Willow in decline as discussed and in the event this tree (not the subject of the TPO) is also removed this would offer a suitable location for either replacement tree species suggested. RBWM will likely condition the replacement in any decision notice relating to the forthcoming application to remove T2.

6.16 It would be advisable to include the crown lifting and removal of deadwood to T1 in any forthcoming application as indicated within Appendix 2 (Tree Works).

6.17 The arboricultural association maintains a list of approved contractors which can be accessed through the link below:

<http://www.trees.org.uk/ARB-Approved-Contractor-Directory>

6.18 As the trees are advised as being included within a Tree Preservation Order (TPO) the rights of the homeowner to prune or remove the tree as they wish have been removed. A formal application to the local authority would be required before any such works can be undertaken.

6.19 In all instances the work should be undertaken in accordance with BS3998 (Tree Works) by a reputable tree surgery firm and with the associated permissions in place.

6.20 **Note:** Dead and dangerous material can be removed without the need for a TPO application but notification under Regulation 14 must still be given the local authority. The weak branch unions/forks present would not normally qualify for consideration as being immediately 'dangerous' in their current form.

6.21 Please note if the intention is to complete tree work between the 1st March & the 31st July (inclusive) a due diligence check for nesting birds must be completed before work starts in order to comply with the Wildlife & Countryside Act 1981. This check should be recorded in the Site-Specific Risk Assessment. If active nests are found work should not take place until the young have fledged. Further information is available [here](#). It would also be advisable to consider Bats during any works given the tree species, age, and form.

6.22 Future Inspections

6.23 The recommended inspection timeframe detailed within this report are for information only. There is no defined period in law and it is generally considered acceptable for homeowners to remain vigilant (rather than repeatedly engage the services of experienced professionals). The key to undertaking inspections is to ensure they are undertaken and that action is taken (by way of tree surgery or further consultancy advice) in the event concerns are raised.

6.24 Whilst this approach will not completely remove risks it is generally proportionate to the risk from tree failure.




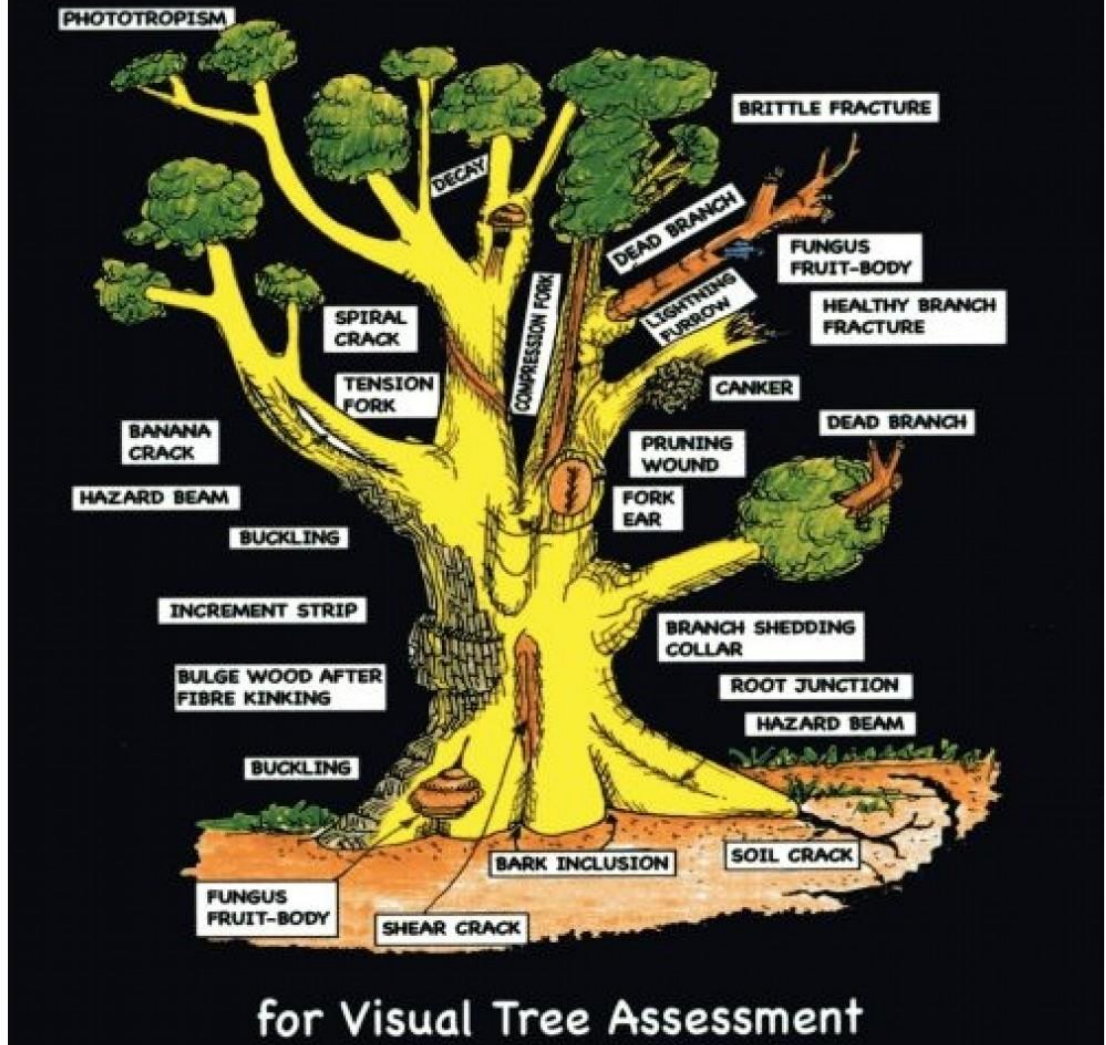
Name	Tree Species Generally Affected	Image	Significance
<i>Armillaria</i> spp Honey Fungus	All		<ul style="list-style-type: none"> • Can lead to rapid decline and death. • Upon removal all dead wood should be removed from soil (stumps ground etc.) to reduce further infections
<i>Kretzschmaria deusta</i> Cinder Fungus	Wide range of broadleaved hosts		<ul style="list-style-type: none"> • Can cause brittle failure events with little prior warning. • Fruiting bodies often discreet.
Oyster Mushroom <i>Pleurotus ostreatus</i>	Wide range including Beech, Horse Chestnut & Poplar		<ul style="list-style-type: none"> • Intense white rot when advanced. • Decayed wood has little strength. • If extensive brittle failure possible.

Fig 4 – Some fungal pathogens to remain vigilant for relevant to the species surveyed

C. Mattheck

Updated

Field Guide



for Visual Tree Assessment

Fig 5 – A guide to Visual Tree Assessment symptoms (Mattheck 1997)

7. Photographs



Image 1 – T1 Sweet Chestnut viewed from the rear garden



Image 2 – Decay evident at the base of T2 with rhizomorphs of Honey Fungus visible



Image 3 – Section of removed bark from T2 showing rhizomorphs of Honey Fungus

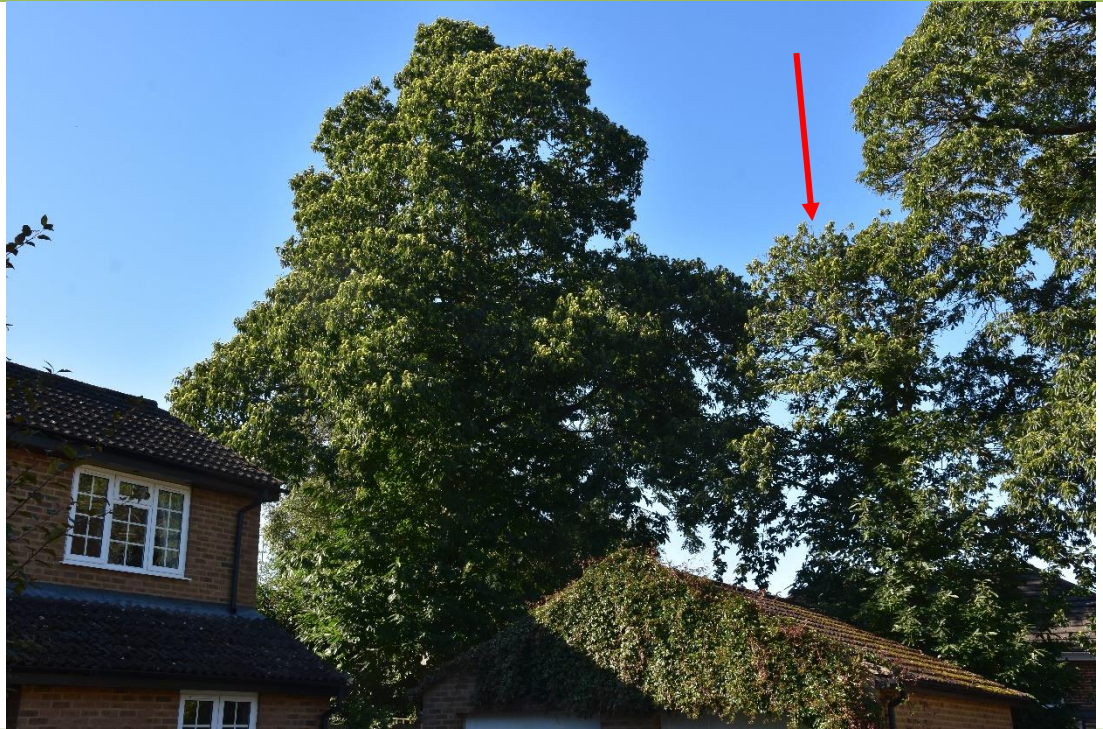
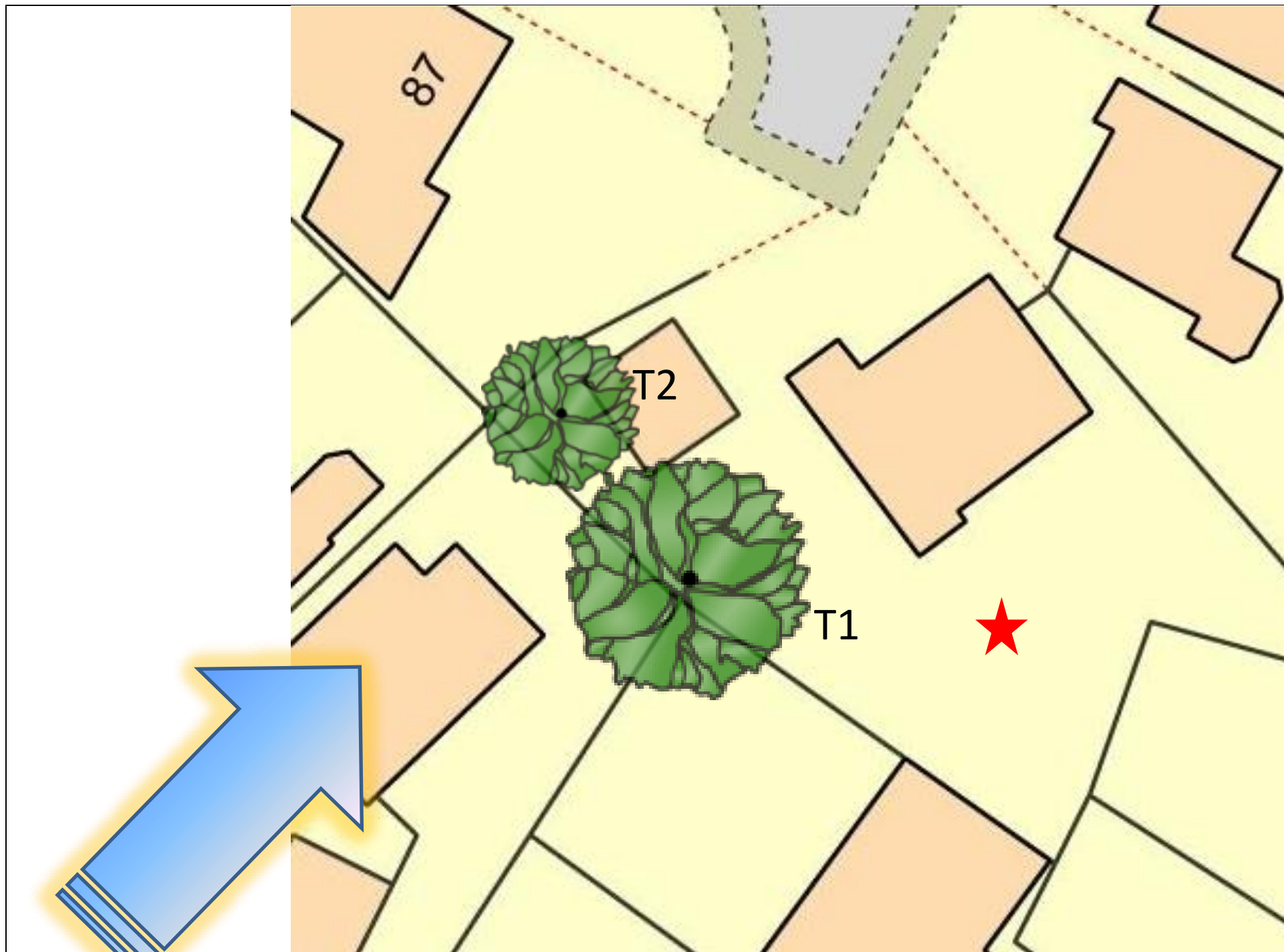



Image 4 – The relative significance of T2 (highlighted) is less given its smaller size and suppression by adjacent trees with T1 shown left

Appendix 1 – Tree Survey Plan



T	Tree
★	Replacement Tree Location for T2
Job Reference: 03373R	
Date: Sept 2020	
Site Location: 85 Sutherland Close, Ascot, SL5 8TE	
E: info@tamlatrees.com	
M: 07845 249 396	
O: 01252 811 233	
W: www.tamlatrees.com	
	

In the UK the prevailing wind direction is from the South West

Appendix 2 – Tree Survey Data

Tree No.	Species	Height (m)	Age Class	Past Management	Defects	General Comments	Risk Target & Year of Next Inspection	Tree Works	Work Priority
T1	Sweet Chestnut	18	Mature	No significant recent management	No Gross Defect Noted	Established mature tree with normal foliar cover. Minor occluding wound on lower stem at around 4m following previous branch removal. Some evidence of historical lifting and selected branch removal. Crown density made binocular inspection of upper branches difficult.	High (2021/22)	Crown lift to 4.5m in line with previously completed works. All work to accord with BS3998 Tree Works	NA
T2	Sweet Chestnut	12	Mature	No significant recent management	Gross Defect Noted	Mature tree but somewhat stunted in overall form. Garage has been constructed close to base many years previously. Areas of dead bark at base, mainly in north western side. Easily removed to reveal mycelial like mat with rhizomorphs indicative of Honey Fungus infection. Some thinning and die back of canopy. Trees size indicates it is less prominent in terms of TPO and wider amenity.	NA Tree to be removed	Remove and Replace	6 - 12 months

Appendix 3 – Tree Surgery Advised

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Appendix 4 - Limitations

Trees should be re-inspected as per the recommendations in this report.

The recommended re-inspections will seek to evaluate the effectiveness of management proposals and to re-evaluate the condition of the tree stock to meet your duty of care to ensure, insofar as is reasonably practicable, that people and property are not exposed to unreasonable levels of risk.

Trees should be inspected by a suitably qualified arboriculturalist after severe weather, localised ground works or other factors that may affect tree health and structural integrity, to assess their condition and evaluate the need for any remedial action. This report makes no recommendations to the risk of property damage by way of subsidence.

Any events that require a detailed inspection to assess tree condition should be carried out by a qualified arboriculturalist. We recommend NVQ Level 5 qualified or above.

Recommendations for tree management have been based on current Arboricultural Best Practice as set out by the Arboricultural profession and all relevant publications.

The presence of Tree Preservation Orders (TPO) or Conservation Area status must be determined prior to any tree works being implemented, failure to do so can result in fines in excess of £20,000.

A legal Duty of Care requires that all works specified in this report should be performed by qualified, arboricultural contractors who have been competency tested to determine their suitability for such works in line with Health & Safety Executive Guidelines. Additionally all works should be carried out according to British Standard 3998 (2010) Recommendations for Tree Work.

Appendix 5 – Surveyor Profile

This survey and report was completed by Keiron Hart (BSc Hons, C.Env, F.Arbor.A, MICFor, MEWI).

Keiron has been inspecting trees for over 20 years. He has extensive experience in hazard tree evaluation. He undertakes individual inspections through to project managing large scale tree hazard surveys. He is a Chartered Environmentalist, Chartered Forester, Fellow of the Arboricultural Association, vetted Member of the Expert Witness Institute and Registered Consultant with the Arboricultural Association.

He undertakes regular legal work providing information and evidence in cases of tree failure.

