#### TREE SAFETY AND MAINTENANCE REPORT, LAND AT 3

## **BEECHCROFT, DUNDRY, NORTH SOMERSET BS41 8LE**

**Client: Mr A Gregory** 

Date 15 April 2022



Viewed facing west with the rear elevation of No 3 to the left of the camera, note the large, characterful T1 has a pronounced southerly trunk lean, presumably a result of historical storm damage, the wide crown windsail area has mature regrowth returned towards the upright; the lowest limbs have damaged the southerly and westerly fence panels and grow across St Michael's churchyard towards a Copper Beech. The proposals are to shorten the lowest heavy laterals (Yellow dash lines) and reshape the upper canopy, needed to clear and repair the fence, reduce the risk of limb and trunk failures and allow better access to the patio and shrub bed beneath.

#### UNDERTAKEN BY

### **Alan Engley**

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## TREE SAFETY AND MAINTENANCE REPORT, LAND AT 3

## **BEECHCROFT, DUNDRY, NORTH SOMERSET BS41 8LE**

#### Client: Mr A Gregory

#### 15 April 2022

### 1. Summary

- 1.1 This report is requested by the client following our tree safety discussions concerning those growing within the grounds at the above, predominantly T1 of the Tree Location Plan (*TLP*), Appendix
  1. In addition, I have viewed the large trees lining Hill Road T2-T5 from ground level, as best as the adverse weather conditions permitted.
- 1.2 In compiling this report, I have considered best practice tree care advice.
- 1.3 A search of the North Somerset Council Interactive Map confirms the trees do not grow within a conservation area; they are protected by a Tree Preservation Order No 88 (made 9 December 1974).
- 1.4 T1 (**Page one picture**) is a substantial one sided Hornbeam; it has heavy limbs damaging wooden fencing, it overhangs the garden shrubbery and St Michael's Churchyard. Recommendations made are to clear the fence panels to allow repairs, reduce its wide crown windsail area and future risk of limb or trunk, failures.
- 1.5 T2-T5 trees are very large, they are within falling distance of properties and power cables; some attract high priority and category risk ratings. A number have crowns supported by old pruning positions with potentially weak attachment points, therefore I recommend frequent periodic inspections.

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## 2. Site Inspection Date – 7 April 2022

- 2.1 Weather- Overcast, cloudy, stormy conditions, wet underfootVisibility very poor
- 2.2 The approximated tree positions are shown on the TLP titled 'Tree Location Plan AJE/AF/29211' dated 15 April 2022 **Appendix 1** to this report.

## 3. Instruction/Limitations/Scope/Legal Obligations

- 3.1 I have been instructed by the client to prepare a Tree Safety and Maintenance Report of trees shown on the TLP. The work scope is with the agreement of the client and subject to budget considerations and limitations.
- 3.2 The work is to include a preliminary <sup>1</sup>Visual Tree Assessment (VTA) which is carried out, where thought necessary, with the aid of binoculars, a sounding mallet and chisel. The opinions, observation and recommendations made are submitted as the surveyor's honest belief and given in good faith.
- 3.3 The VTA is a basic level inspection of a tree, its surrounding site and a combination of the full data collection; it is guided by the Principles and Methodology found within <sup>1</sup>The Body Language of Trees Paragraph 14 'A' Practical Guide for Tree Inspection by Mattheck and Breloer 'A handbook of failure analysis' and <sup>2</sup>Applied Tree Biology Hirons and Thomas'
- 3.4 The Occupiers Liability Acts 1957 and 1984 require that premises, including trees, are kept safe for residents, employers, guests and visitors. A prudent approach to this issue can be demonstrated by

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routine inspections of the significant trees carrying out all recommendations made relating to safety of people and property. The Health and Safety at Work Act 1974 also places a duty on employers to take all reasonable steps to ensure that employees and visitors are not exposed to unacceptable risk to their health and safety.

- 3.5 Unless otherwise stated, at least an annual inspection of the trees should be carried out, or sooner following exceptional weather conditions such as high winds. No liability can be assumed to rest with A J Engley & Associates should conditions alter after the tree assessments.
- 3.6 This report and the tree work recommendations made have been produced for the sole use and benefit of the client. It is not a specification for tree work. Any liability of A J Engley & Associates shall not be extended to any third party.
- The VTA, trees, potential for root failure, future inspections
- 3.7 Guidance from the <sup>3</sup>DETR 'Research for Amenity Trees No 7 Principles of Tree Hazard Assessment and Management by David Lonsdale suggests 'when assessing tree safety it is essential to take into account other factors which may increase or reduce the hazard...the height and sail area of the crowns are of particular importance...degree of exposure to the wind...a case history of the species.'
- 3.8 T1 grows against the westerly fence, its lower limbs obstruct access, damages fences, overhang the churchyard frequented by children studying natural habitat structures beneath its limbs. T2-T5 are a row of roadside specimens, some have ivy cover/foliage screening their lower trunks which obstructed my inspections. Page 5 of 11

- 3.9 T2-T5 there is no soil disturbance inside their immediate rooting zones, such as ground subsidence, soil cracking or lifting within the observable land at rootball distances, which could indicate insecure root balls or potential rotation of root plates.
- 3.10 I recommend the low shrub foliage and ivy should be cleared up to a 2m height, to permit good access and visibility prior to the next tree inspection date. Irrespective of which, I am confident I had sufficient views to properly carry out my tree safety assessment on this occasion.

# 4. Risk/Hazards/Targets/Usage Assessments Examples and Work Recommendations

- 4.1 I have assessed the risk failure, hazards, targets and usage within falling range of a complete or partial collapse of each tree.
- 4.2 T1 is a leaning, historical 'wind heave' victim; it has damaged branches and overhangs the churchyard. Trees numbered T2-T5 have branch spreads across Hill Road, within reach of car parking bays, power lines and properties opposite.
- 4.3 My usage assessment is based on the likelihood of people being injured or buildings and other valued property being damaged in the event of failure of all or part of a tree which could cause serious damage.

### Tree risk assessment systems

4.4 The risk is the likelihood of failure, the likelihood of impacting a target, the targets, and the severity of the consequences. There are different systems available to manage tree risk. With guidance from Quantified Tree Risk Assessment (*QTRA*) the approach used here is Page 6 of 11

to consider the land on which the trees stand (*Target*) which will inform the process of assessing the trees. QTRA has numerical advisory risk thresholds, regarding the acceptability of the risk and the prescribed action to control the risk, with assessed costs.

4.5 Guidance from the <sup>4</sup>American Society of Consulting Arborists *(ASCA)*, addresses the tree, and *likelihood* of any part failing.

Likelihood	Definition	Time scale		
of failure				
Imminent	Failure has started or is most likely to occur in the near future, even	(Note)		
	if there is no significant wind or increased loading	The `time scale' for this		
		system assesses the		
		likelihood of failure over a		
		time frame of days, months		
		or years		
Probable	Failure may be expected under normal weather conditions within the			
	specified time period			
Plausible	Failure could occur under normal weather conditions within the			
	specified time period			
Possible	Failure could occur, but is unlikely under normal weather conditions			
	within the specified time			
Improbable	The tree or branch is not likely to fail during normal weather			
	conditions and may not fail in many severe weather conditions			
	within the specified time period			

4.6 The simplified tree risk assessment method I use has similarities of both the above systems and I consider it suitable for this site.

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<sup>1</sup> VTA, found in 'DOE Research for Amenity Trees, No. 4 Mattheck and Breloer, The body language of trees'. A handbook of failure analysis

<sup>2</sup> Applied Tree Biology Hirons and Thomas (Wiley Blackwell)

<sup>3</sup> DETR 'Research for Amenity Trees No 7 Principles of Tree Hazard Assessment and Management by David Lonsdale

<sup>4</sup> Working with the ISA BMP on Tree Risk Assessment (Jerry Bond, Urban Forest Analytics LLC) With guidance from ASCA

## 5. Priority Risk Categories to determine timing of work and proactive tree management.

- 5.1 \*High priority (\*H), \*Category 1, work to be carried out without delay on safety grounds; failure has started or is most likely to occur in the near future, even if there is no significant wind or increased loading. The surveyor is to report the danger to the client immediately on the day of inspection or as soon as reasonably practical.
- 5.2 High priority (H), Category 2, Failure may be expected under normal weather conditions within the specified time period and work should be carried out within 12 months from the date of inspection.
- 5.3 Moderate priority (M) Category 3, a possible risk but the work is non-essential, trees may need further inspections or pruning to reduce long term failure risks, or used to reduce debris nuisance and crown lifting above gardens, paths, churchyards to permit safe under passage of pedestrians, vehicles and users in high usage areas; it could be carried out within 12-36 months from the date of inspection.
- 5.4 Low priority (L) Category 4, improbable risk of tree failure and could be non-essential cyclical work, say on 36 monthly rotations and may be part of an existing grounds maintenance program.

# 6. Terms Used Include: - (Ref BS3998 (2010) Recommendations for Tree Works)

'Crown Reduction' ('re-shaping') - <u>Overall height and spread reduction</u> by judicious pruning. 'Crown Lift' - The removal of low branches to a pre-determined height, ground level to lowest branch 'Remove Deadwood' or 'Conservation deadwood' – Removal or reducing deadwood that is unstable or prone to failure and of significance to safety. Retained deadwood could be 'coronet-cut' and managed as a useful wildlife habitat.

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#### 7. Reference/Further Information

'The Body Language of Trees' Mattheck and Breloer ISBN 0 11 753067 0 Wildlife and Countryside Act 1981 British Standard 3998 (2010) 'Recommendations for Tree Works' Department of the Environment Research for Amenity Trees No 4 'The Body Language of Trees - The Handbook for Failure Analysis' by Claus Mattheck and Helge Breloer.

Department of the Environment Transport Regions No 7 Research for Amenity Trees No 7 'Principals of Tree Hazard Assessment and Management' by David Lonsdale.

Working with the ISA BMP on Tree Risk Assessment (Jerry Bond, Urban Forest Analytics LLC) American Society of Consulting Arborists

#### 8. Legal Constraints

Unless otherwise stated at least an annual inspection of the trees should be carried out or sooner following exceptional weather conditions such as high winds.

It is an offence under the Wildlife and Countryside Act to disturb a nesting bird or roosting/breeding bat. Work to trees with the potential for roosting bats is best carried out from mid-September to late October. This assumes that young bats are weaned and independent, and is before hibernation. Mid-March to the end of April is also a suitable time, after hibernation and before young are born, although due account should be taken of nesting birds, which also (with few exceptions) enjoy statutory protection.

The Occupiers Liability Acts 1957 and 1984 require that premises including trees are kept safe for residents, employers, guests and visitors. A prudent approach to this issue can be demonstrated by routine inspections of all significant trees carrying out all recommendations made relating to safety to people and property.

The Health and Safety at Work Act 1974 also places a duty on employers to take all reasonable steps to ensure that employees and visitors are not exposed to unacceptable risk to their health and safety.

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	TREE SAFETY SURVEY SCHEDULE – Land	I at 3 BEECHCROFT, DUNDRY, NORTH SOMEI	RSET BS41 8LE			
Abbreviations:	DI- Dense ivy cover or vegetation/obstacles, sufficient to prevent a condition inspection	TARGETS (TGTS)	Surveyor:	A J Engley		
		Road – RD (and parked cars) Grounds – GRNDS-Gardens				
AGE:		Graveyard - GY	Survey Date:	7 April 2022		
	CL – Crown Lift	Services cables - SVS	-	-		
OM - Over-mature	GL – Ground level	Grave Stones - GS	Weather: underfoot	Overcast, stormy, wet		
M - Mature	(E) – Points of the compass	Buildings - BLD	Visibility:	Poor		
TD – Trunk Diameter			Tagged: PHYSIOLOGICAL	No CONDITION (CON):		
	CDW-(Conservation deadwood) remove or treat	PRIORITY (Re-appraise priorities within the annual inspection)	G – Good condition			
	deadwood of significance to safety	CATEGORY 1 - 4 *HIGH PRIORITY – *H *1 CARRY OUT WORK WITHOUT DELAY	F – Fair condition P – Poor condition			
	CR – Crown Reduce	HIGH PRORITY – H 2 CARRY OUT WITHIN 12 MONTHS ( or as recommended in the report)	or as			
		MEDIUM PRIORITY – M 3 CARRY OUT WITHIN 24 months LOW PRIORITY – L 4 Annual inspection, non-urgent				

NOTE:

Ivy should be retained as wildlife habitat and removed only to allow a detailed condition inspection. T1 – T6 Ivy, detritus and foliage around the base of each tree should be removed to enable lower trunk buttress inspections • Crown lift all trees 2.5m (access for mowers & pedestrians)

Tree Ref No. `T'	Species	Hgt (m)	Crown Radial Spread	TD (mm)	AGE	CON	TGTS	Priority Category	Structural condition and observations	Recommendations
T1	Hornbeam ( <i>Carpinus</i> <i>betulus</i> )	12	N -5m E -10m W - 9m S - 12m	600	OM	G	GY GRNDS BLD	M  3	DI, the trunk is 40cm from the wooden fence panel and 9.6m from the westerly flank wall of the house; it has a 45 degree southerly lean. The first fork arises at 1.5m above GL supporting limbs spreading across the fence and graveyard, up to the outer foliage of a maturing Copper Beech growing within the graveyard. There is a south westerly facing lateral and numerous southerly facing horizontal, becoming down swept outer limbs, one of which has a 'hazard beam' split just beyond a fork with the parent stem.	<ul> <li>CR- Cut south westerly facing lateral, closest to fence, back to 1.4m from the parent stem; cut to a minor cavity, retaining the near upright branch.</li> <li>Shorten the westerly facing sub-leader by 3m, back to appropriate side growths, cuts 15cm diameters.</li> <li>Shorten southerly facing heavy down swept branches by 3m (Page one yellow dash line) to clear fence height, cuts 15cm diameters</li> <li>Shorten the above down swept damaged branch, cut back to the hazard beam split, retain split (bat wildlife habitat?), cut at 35cm diameter</li> <li>Crown lift lowest lawn facing, 7m long, down swept curving branch, cut back to parent stem, cut diameter at 15cm.</li> <li>Inspect for and carry out CDW</li> </ul>

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Tree Ref No. `T'	Species	Hgt (m)	Crown Radial Spread	TD (mm)	AGE	CON	TGTS	Priority Category	Structural condition and observations	Recommendations
Τ2	Beech ( <i>Fagus</i> <i>sylvatica</i> )	23	6.4m south (m) 12m (N)	1300	M	F	RD GRNDS GY SVS BLD	H 2	T2 grows 2.4m from the left side wooden overlap fence close to the churchyard boundary fence. It forks at 2-6m heights with a tight fork configuration near upright main trunk with no signs of significant pest or disease. Good even bud distribution. Dense crown spreading across road. It forms the westerly end of a group of 4 similarly sized trees with intertwining canopies	• Climbing inspection, principally of the main fork area.
Т3	Sycamore (Acer pseudoplatanus)	22	7.7m (S) 12m (N)	1300	M	F	RD GRNDS GY SVS BLD	H 2	DI up to the 2m high narrow fork configuration; narrow form. Old occluding trunk scars. Previously crown reduced within the top 25% of the overall crown height. Crown re- sprouting growth up to 10cm diameters from potentially weak attachment points.	• Climbing inspection, principal fork areas
T4	Sycamore It grows 13m from the rear elevation of the house and 7m measured from T3	19	9	1300	М	F	RD GRNDS GY SVS BLD	H 2	DI, near upright stem, forks at 5m into 3 principal wide spreading leaders.	Climbing inspection, principal fork areas.
Τ5	Beech	25	11	1000	М	F	RD GRNDS GY SVS BLD	H 2	DI, it grows as the easterly end specimen to the local group. It has no obvious signs of disease or decay at the trunk base which has a natural easterly bias supporting a high dense upper crown, outgrowing towards the north and west.	Climbing inspection