BS5837:2012
Tree Survey

Grove Service Station
Old Bath Road, Charvil
Reading, RG10 9QJ

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Contents

1. Introduction

1.1. TGA Ltd was instructed by Speedy Fuels & Lubricants Ltd in December 2024 to survey the trees at Grove Service Station, Old Bath Road, Charvil, Reading, Berkshire, RG10 9QJ in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.

1.2. The original survey was carried out on 6th January 2025 to record the species and dimensions of the trees, and to assess the trees on site for their quality and benefits within the context of proposed development. A further survey has been undertaken on 21st October 2025 to include trees T35 – T43.

1.3. The reference for the Tree Survey Plan that accompanies this report is TGA. 2688.TSP.001A.

1.4. The survey plan is based on the supplied topographical survey by Ground Surveys Ltd job number 7701 dated July 2022.

1.5. The local planning authority is Wokingham Borough Council. According to a search of the councils online mapping service on 8th January 2025, there are no tree preservation orders (TPOs) at the site, and the site is not within a conservation area.

1.6. According to a search of www.magic.gov.uk there is no Ancient Semi Natural Woodland (ASNW) on or near the site.

2. Survey method & limitations

2.1. The survey has been carried out following BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. Further notes on survey method are included in the comments section of the schedule where required.

2.2. Trunk diameters were measured at 1.5m above ground level using a diameter tape. For trees that were offsite or inaccessible at the time of survey, stem diameters may be estimated. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter given may be an estimated average or an estimated maximum.

2.3. Tree heights were measured with a Hagloff clinometer or estimated in relation to those measured with the clinometer.

2.4. Crown clearance is interpreted as the height of lowest foliage from the crown above ground level.

2.5. Tree canopies were measured in four directions using a Leica Deisto laser measure. Where required dimensions were estimated by pacing. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. The canopy extent of tree groups will be based on the topographical survey, or by measuring a maximum canopy radius for each tree.

2.6. Categories are based on the Table 1 - Cascade chart for tree quality assessment from BS5837:2012. A is high quality; B is moderate quality; C is low quality, and U category trees are in such a condition that they cannot realistically be retained for longer than 10 years.

2.7. Where trees are located on neighbouring land dimensions are estimated.

2.8. Where stems or branches are obscured by ivy or other materials a full assessment of those parts was not possible.

2.9. Where trees were not plotted on the topographical survey their positions must be considered as estimated.

2.10. This report provides tree survey data in accordance with BS5837:2012. The survey was not carried out for health and safety purposes.

2.11. Information from this survey may be used for NHBC chapter 4.2 foundation calculations with the limitation that the survey was not carried out explicitly for that purpose. It is recommended that further advice is sought from the author prior to use of this report for this purpose.

3. Overview

3.1. The site comprises a garage site with access from Old Bath Road at the north. There are two main buildings, with the majority of the rest of the site covered in concrete surfacing.

Overview of site included in survey – Google imagery

3.2. To the south of the site is a fishing lake. The level of the ground offsite to the south and east is lower than the surface within the site by approximately 1m.

3.3. A total of 41 individual trees with stem diameters of 75mm and above at 1.5m were surveyed and recorded, with four trees included as a group. There are trees present in the grass verge area at the north of the site, with two also located close to the northern garage building. The remainder of trees are located on or outside the boundaries at the south and east. T35 – T43 are located between the entrance track and the river 'Old River' at the east.

3.4. None of the trees on site are 'A' category.

3.5. 8 trees included in the survey are 'B' category. 'B' category trees are those with moderate individual quality, or are present growing as groups with collective landscape value, such that they attract a higher collective rating than they might as individuals.

3.6. There are 28 individual trees and two group of trees on the site which are 'C' category. These are 'C' category either due to their low inherent value due to low overall physiological vigour, or structural faults, or their diameter is less than 150mm at 1.5m above ground level. There are a number of Leyland and Lawson Cypress planted at the north of the site as part of the landscaping which have some value as screening, but are relatively low quality. There are

self-seeded sycamore, goat willow and ash on the eastern boundary, as well as just offsite to the south which are also low quality.

3.7. Trees T35 – T43 are mainly Ash trees. These are self-seeded and in a generally poor condition, with a limited life expectancy due to ash dieback disease (for further details see recommendations below).

3.8. There are six 'U' category trees on the site which could be removed as good arboricultural practice irrespective of any development.

3.9. BS5837 section 4.6 recommends that where constraints to root growth appear to be present, RPAs should be adjusted to reflect the likely root growth pattern, without reducing the total area of the RPA. In the case of the trees on site, roots from the trees will have been constrained by the concrete hard standing on the site. Although the trees are likely to have a higher concentration of root activity in the soft area at their base, it cannot be precluded that the trees may have roots within or under the surrounding hard surfaces. For this reason, the RPAs of the trees have been left as circles on the Tree Reference Plan. However there is scope for development within RPAs where there are existing hard surfaces and buildings, subject to adherence to BS5837 recommendations.

3.10. For further information on individual trees see the comments section within the tree survey schedule below.

Trees on site frontage T1 – T10

Offsite trees to south of site T14 – T20

Offsite trees to south at lower level to site within waterlogged ground

Collapsed U category tree T32

Self-seeded ash trees on eastern boundary

Trees at northeast of site T40 (centre), T38 (centre left)T36 (centre right)

Trees at northeast of site T40 (left) – T35 (right)

4. Recommendations

4.1. Given the location of the trees at the site on or near the boundaries, there is scope for development of the site without causing adverse impact on retained trees. There is scope to develop within the RPAs of trees where there are existing buildings and hard surface.

4.2. Trees of A and B category are a constraint to development, and their retention is recommended as part of any proposed development layout.

4.3. C category trees are not usually considered a constraint to development, but they should be retained where there is no reason for their removal. This is especially the case where C category trees are located on site boundaries such that they have landscape value as screening.

4.4. U category trees are in such a condition that they are unlikely to contribute beyond 10 years, and may be removed as good arboricultural practice.

4.5. Ash dieback disease is present within the area and affecting many of the trees (see information box below). Where trees are affected by the disease this lowers their category to C or U due to their limited life expectancy.

Ash Dieback Disease:

According to 'Ash Dieback Guidance for Tree Owners, Managers, Contractors and Consultants' published by Arboricultural Association: Common Ash (Fraxinus excelsior) is a prolific native tree species accounting for 12% of broadleaved woodland in Great Britain and is commonly found in parks, gardens and hedgerows.

Ash dieback is caused by a fungus called Hymenoscyphus fraxineus. Part of the fungus life cycle was formerly known as Chalara fraxinea, hence the alternative names including chalara or chalara ash dieback. Ash dieback causes leaf loss and crown dieback, leading to the death of the tree.

Whilst not all ash trees will die as a direct result of ash dieback infection, research and experience in Europe indicates that only 5% of the ash population may be genetically tolerant to ash dieback. 100% mortality in natural forests within 30 years can't be ruled out, and mortality between 50% and 75% may be more likely. In plantations 85% mortality is the highest recorded in Europe thus far.

It doesn't necessarily follow that all ash trees growing in these areas will need to be removed or that they will all die. The arboricultural association guidance therefore suggests that uninfected ash trees should not be felled unless there are other overriding management requirements to do so.

4.6. With trees T35 - T39 there is ash dieback visible within the canopy and a reduced level of live foliage. The trees have a limited life expectancy of less than 20 years making them C category. As such it is not considered that these should represent any constraint to development should their removal be

required. Replacement planting is recommended for trees removed, however an alternative species to Ash would be recommended.

4.7. BS5837:2012 recommends that tree constraints should be considered both above and below ground. Damage to trees below ground occurs when tree roots are severed during excavation, or when soil is compacted such that roots will not grow. BS5837:2012 therefore gives a 'default position' that the proposed layout should be designed to ensure that structures are located outside the RPAs of trees to be retained.

4.8. Trees provide amenity in terms of their individual ornamental value, as well as their contribution to the landscape. Consideration must be given to their height and spread, shading, factors relating to proximity to dwellings, as well as perceived threat of tree failure. It is therefore important to ensure that adequate space is provided to ensure that there is a satisfactory relationship between retained trees and any proposed layout design.

4.9. When a final layout design is produced, an Arboricultural Impact Assessment (AIA) should be completed to evaluate the direct and indirect effects of the proposed design, and where necessary recommend mitigation. Where such mitigation is required, an Arboricultural Method Statement and Tree Protection Plan should be produced to provide protection measures as per BS5837:2012 recommendations.

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5. Tree Survey Schedule

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Crataegus monogyna (Hawthorn)	7(2)	260(1)	3.5, 3.5, 3.5, 3.5	M	10+	Low individual quality but landscape value as part of boundary screening.	C2
T2	Acer campestre (Field Maple)	8(2)	350(1)	4, 2, 4, 4.5	M	20+	Uneven crown shape due to competition with adjacent trees. Ivy on main stem. Scattered deadwood throughout upper crown.	B2
T3	Acer campestre (Field Maple)	10(2)	380(1)	3, 2, 3, 3	M	20+	Uneven crown shape due to competition with adjacent trees. Ivy on main stem. Scattered deadwood throughout upper crown. One of three trees planted in close proximity at base with shared canopy	B2
T4	Acer campestre (Field Maple)	10(2)	280, 390, 320(3)	3, 4.5, 4.5, 2	M	20+	Multi stem from 1m. Uneven crown shape due to competition with adjacent trees. Ivy on main stem. Scattered deadwood throughout upper crown. One of three trees planted in close proximity at base with shared canopy	B2
T5	Acer campestre (Field Maple)	10(2)	400(1)	4, 3.5, 1, 3.5	M	20+	Multi stem from 1m. Uneven crown shape due to competition with adjacent trees. Ivy on main stem. Scattered deadwood throughout upper crown. One of three trees planted in close proximity at base with shared canopy	B2
T6	Crataegus monogyna (Hawthorn)	6(2)	100(6)	3.5, 3.5, 3.5, 3.5	M	10+	Multi stem from ground level. Average estimated diameter given for multiple stems. Ivy throughout crown. Low individual quality but landscape value as part of boundary screening.	C2

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T7	Chamaecyparis lawsoniana (Lawson Cypress)	11(2)	220, 190(2)	2, 2, 2, 2	EM	20+	Twin stem from ground level. Sparse crown. Low individual quality but landscape value as part of boundary screening.	C2
T8	X Cupressocyparis leylandii (Leyland Cypress)	14(2)	390, 200(2)	4, 4.5, 4, 3.5	M	10+	Leaning stem. Unbalanced crown shape. Tight fork at base between main stem and smaller upright limb	C2
T9	Chamaecyparis lawsoniana (Lawson Cypress)	9(2)	150, 200(2)	2, 2, 2, 2	EM	20+	Twin stem from ground level. Diameter estimated due to dense basal growth. Low quality and not a development constraint.	C2
T10	Chamaecyparis lawsoniana (Lawson Cypress)	9(2)	150, 220(2)	2, 2, 2, 2	EM	20+	Twin stem from ground level. Low quality and not a development constraint.	C2
T11	Quercus robur (Common Oak)	14(2)	500(1)	7, 7, 7, 7	M	40+	Ivy throughout crown. Offsite tree dimensions estimated.	B2
T12	Chamaecyparis lawsoniana (Lawson Cypress)	9(2)	200(1)	2, 2, 2, 2	EM	20+	Low quality and not a development constraint. Inaccessible at the time of survey.	C1
T13	Betula pendula (Silver Birch)	10(2)	200(1)	3, 3, 3, 3	EM	20+	Low quality and not a development constraint. Inaccessible at the time of survey.	C1
T14	Salix alba (White Willow)	21(4)	930(1)	7.5, 7.5, 7.5, 7.5	M	20+	Offsite tree at edge of lake. Located with stem in waterlogged ground. Willow species have weak timber, and can therefore be susceptible to broken branches and windthrow, limiting their life expectancy and thereby lowering category.	B2

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T15	Salix alba (White Willow)	21(4)	390, 380, 400(3)	7.5, 7.5, 7.5, 7.5	M	20+	Multi stem from ground level. Deadwood in crown. Offsite tree. Rooted in area of wet ground. Northern stem leans at an unsustainable angle into site. Recommend this is reduced by 50% of height to boundary line to reduce risk of collapse.	C2
T16	Salix alba (White Willow)	21(4)	520(1)	7.5, 2, 7.5, 7.5	M	20+	Uneven crown shape due to competition with adjacent trees. Deadwood in crown. Offsite tree. Rooted in area of wet ground	C2
T17	Salix alba (White Willow)	21(4)	300, 400(2)	7.5, 7.5, 7.5, 7.5	M	20+	Twin stem from ground level. Stem inaccessible diameter estimated. Deadwood in crown. Offsite tree. Rooted in area of wet ground. Limb in upper crown snapped and laying on canopy of G18 trees.	C2
G18	Salix alba (White Willow)	10(0)	200(1)	3, 3, 3, 3	EM	10+	Canopy extents as indicated on topographical survey. Average estimated dimensions given for group. Low individual quality but landscape value as part of boundary screening. Relatively low quality offsite trees with numerous faults.	C2
T19	Salix alba (White Willow)	21(4)	910(1)	7.5, 7.5, 7.5, 7.5	M	20+	Offsite tree at edge of footpath near lake.	B2
T20	Salix alba (White Willow)	21(4)	870(1)	7, 7.5, 9, 7.5	M	20+	Offsite tree at edge of lake.	B2
T21	Salix caprea (Goat Willow)	4(0)	100(2)	4, 4, 4, 4	SM	20+	Stem diameter estimated. Low quality and not a development constraint. Multistem regrowth from stumps.	C1

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T22	Salix caprea (Goat Willow)	4(0)	100(2)	4, 4, 4, 4	SM	20+	Stem diameter estimated. Low quality and not a development constraint. Multistem regrowth from stumps.	C1
T23	Crataegus monogyna (Hawthorn)	5(1)	100, 100, 150(3)	3, 2.5, 2.5, 2.5	EM	20+	Root heaved stem with side branches forming crown.	C2
T24	Malus (Apple)	7(2)	200, 200, 250(3)	3.5, 4.5, 4.5, 3.5	M	20+	Stem diameter estimated. Heavily reduced in the past and then regrown to current extents	C2
T25	Salix caprea (Goat Willow)	6(2)	240(1)	3.5, 3.5, 2, 2	EM	20+	Consistent with having self-seeded. Unbalanced crown shape. Ivy throughout crown. Low quality and not a development constraint.	C2
T26	Fraxinus excelsior (Ash)	10(3)	300(1)	4, 4, 4, 4	EM	10+	Limited life expectancy due to Ash dieback disease. Ivy throughout crown. Self-seeded between shed and chain link fence. Stem diameter estimated due to fence	C2
T27	Salix caprea (Goat Willow)	10(2)	250, 250(2)	4, 0, 5, 7	M	<10	Stem position estimated as not indicated on topographical survey. Offsite tree collapsed with two stems leaning into site. Scope to reduce back to boundary or fell subject to owner permission.	U
T28	Fraxinus excelsior (Ash)	10(3)	190, 120, 120(3)	3, 3, 3, 3	SM	<10	Limited life expectancy due to Ash dieback disease. Consistent with having self-seeded. Low quality and not a development constraint. Multi-stem with two stems absorbed into chain link fence.	U

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T29	Quercus robur (Common Oak)	10(0)	150(1)	3, 3, 3, 3	SM	40+	Self-seeded tree on boundary. Poor stem shape	C2
T30	Quercus robur (Common Oak)	10(0)	150(1)	3, 3, 1, 1	SM	40+	Unbalanced crown shape. Self-seeded tree on boundary.	C2
T31	Fraxinus excelsior (Ash)	10(3)	250(1)	3, 3, 3, 3	SM	10+	Limited life expectancy due to Ash dieback disease. Consistent with having self-seeded. Stem diameter estimated. Ivy throughout crown. Low quality and not a development constraint.	C2
T32	Salix caprea (Goat Willow)	13(1)	500(1)	4, 4, 8, 4	M	<10	Located between two fences diameter estimated. Main stem leans at 45 degrees from past collapse. Top of main stem cut off and a few former side branches now form crown. Poor quality and not suitable for retention. Removal recommended.	U
T33	Fraxinus excelsior (Ash)	10(3)	250(1)	1, 0, 3, 3	SM	<10	Limited life expectancy due to Ash dieback disease. Consistent with having self-seeded. Stem diameter estimated. Low quality and not a development constraint. Previously topped at 3m. Stems absorbed in chain link fence. Not suitable for retention.	U
T34	Salix alba (White Willow)	16(5)	560, 580(2)	8, 6, 8, 6	OM	10+	Unbalanced crown shape. Twin stem from 1m. Pollarded at 4-5m. Decay visible in pollard knuckle. Species prone to decay and weak timber leading to branches breaking. Not suitable for retention in current condition. Recommend re-pollarding or removal.	C2

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T35	Fraxinus excelsior (Ash)	13(8)	330(1)	3, 1, 1, 5.5	EM	10+	Sparse with evidence of Ash dieback visible throughout crown. Limited life expectancy. Leaning stem. Unbalanced crown shape. Compromised by Ivy infestation. Located 9.75m from T34 and 14.5m from corner of building.	C2
T36	Fraxinus excelsior (Ash)	12(5)	290(1)	4.5, 2, 2, 4.5	EM	10+	Sparse with evidence of Ash dieback visible throughout crown. Limited life expectancy. Unbalanced crown shape. Compromised by Ivy infestation. Located 10m from T34 and 11m from corner of building.	C2
T37	Fraxinus excelsior (Ash)	6(2)	100(1)	4, 1, 0, 3	SM	10+	Limited life expectancy due to Ash dieback disease. Stem position estimated as not indicated on topographical survey. Low quality and value.	C2
T38	Fraxinus excelsior (Ash)	16(8)	660(1)	5, 5, 5, 5	M	10+	Limited life expectancy due to Ash dieback disease. Located 15m from T34 and 17m from corner of building. Approximately 50% of leaf cover present due to ash dieback. Deadwood throughout crown.	C2
T39	Fraxinus excelsior (Ash)	13(8)	330(1)	4.5, 2, 1, 2.5	EM	10+	Limited life expectancy due to Ash dieback disease. Leaning stem. Unbalanced crown shape. Located 8.5m from edge of roadway and 15m from corner of building. Dense ivy on main stem and throughout upper crown.	C2

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T40	Salix fragilis (Crack Willow)	8(1)	300(1)	6, 2, 0, 4	EM	<10	Stem diameter estimated. Approximately 4.5m from edge of roadway. Main stem windblown and leaning at 45° towards road. Main stem snapped out in line with road edge and then cut back presumably to clear storm damage back from road. Not suitable for long term retention due to likelihood of collapsing further onto the road. Poor physiological condition due to few remaining branches. Ivy swamped.	U
T41	Fraxinus excelsior (Ash)	10(7)	450(1)	2, 2, 2, 2	M	<10	4m north of T38. Dead from Ash dieback disease. No live foliage visible. Ivy infested stem. Large branches snapped off and lying at base of tree.	U
T42	Acer campestre (Field Maple)	6(1)	160(1)	2, 4, 3, 2.5	EM	40+	Unbalanced crown shape. 1m west of T38. Uneven crown shape part of understorey.	C2
G43	Crataegus monogyna (Hawthorn),Salix fragilis (Crack Willow),Corylus avellana (Hazel)	4(0)	50(1)	1, 1, 1, 1	Y	40+	Saplings and collapsed willow in this area. Area inaccessible due to dense ivy. Low quality and not a development constraint.	C2