

Subsidence Tree Report

For William Hunt Consulting

Property: South Lodge, Wellington Court, Spencers Wood, RG7 1BN

Insured:



Insurer:

TBC

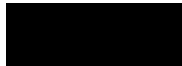
Insurer Ref:

TBC

WH Ref:

TBC

Our Reference:



Consultant:

Keiron Hart (BSc Hons, C.Env, F.Arbor.A, FICFor, MEWI, AARC, APAEWE, VETcert)

Visit Date:

1st April 2026

Report Date:

2nd April 2026

Scope of Report

To assess trees within potential influencing distances. Identify their current & future potential to cause or contribute to damage to the property by way of direct or indirect damage.

Note

This report is based on the assumption engineers are satisfied that any damage is attributable to vegetation related subsidence. It is intended for use between the client, Tamla Trees Ltd and any parties detailed within the report.

1. Property Description & Overview

- 1.1 My instructions relate to a vegetation related subsidence damage claim to the property. I am asked to review the available site investigations, complete my own site survey and provide comment and recommendations.
- 1.2 The property is a detached house. It appears of traditional brick construction with a hip tiled roof.
- 1.3 I am advised that this is a long-standing claim with yearly cycles of damage escalation in the summer months (supported by the available level monitoring). The timing and cyclical nature of damage is therefore wholly consistent with vegetation related subsidence.
- 1.4 During my site assessment I had access to garden areas around the pool house. I took measurements with a Leica D1 distometer, entered survey data on an iPad and took 11 photos with a Canon Ixus 70 camera.
- 1.5 The property and trees detailed within this report are within the [Wokingham Borough Council](#) administration area. The councils constraint plan confirms that trees are not located within a Conservation Area but that the trees referenced as T1, T2, T3, T5 & T6 are included within respective Tree Preservation Orders (TPO).
- 1.6 Insurers have agreed to the installation of a root barrier to isolate the influence of identified trees on the property. In response TPO application ref: 250584 was submitted (and approved). The proposal is now for a longer barrier to isolate the complete property. The Council have requested additional information to more clearly identify tree species and locations as it relates to the subsidence and proposed (extended) barrier. This report is compiled in response to that request and a new TPO application being submitted.
- 1.7 The level of cracking assessed with Table 1 of BRE Digest No.251¹ is not advised but appears visually to be CAT 3. Noted levels of damage are by the case engineer upon their assessment. It is normal for damage levels to increase and decrease throughout the year depending on the level of influence and weather conditions.

Category	Description	Size
Cat 0	Negligible	<0.1mm
Cat 1	Very Slight	0.1-1.0mm
Cat 2	Slight	1mm-5mm
Cat 3	Moderate	5mm-15mm
Cat 4	Severe	15mm-<25mm
Cat 5	Very Severe	>25mm

Table 1 – BRE Digest 251 damage categories. Damage appears consistent with BRE Cat 3.

¹BRE Digest 251: Assessment of damage in low-rise buildings, with particular reference to progressive foundation movement. Revised 1995

2. Underlying Soil

- 2.1 For vegetation related subsidence damage to occur an underlying clay soil is required. An assessment of the British Geological Survey open-source data for the property indicates:

	Soil Description
	Bedrock Deposits: London Clay Formation- Clay, silt and sand. These sedimentary rocks are marine in origin. They are detrital and comprise coarse- to fine-grained slurries of debris from the continental shelf flowing into a deep-sea environment, forming distinctively graded beds.² Superficial Deposits: River Terrace Deposits, 5-Sand and gravel. These sedimentary deposits are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting).³

3. Site Investigations

- 3.1 The following [site investigations](#) were available for the formation of our report.

Level & Crack Monitoring
Soil testing
Engineers Report

Trial Pit & Borehole Logs
Root Identification
~~**Drain Report**~~

² <https://webapps.bgs.ac.uk/lexicon/lexicon.cfm?pub=LC>

³ <https://webapps.bgs.ac.uk/lexicon/lexicon.cfm?pub=RTD5>

4. Tree Ownership & Protected Status

Ownership	
Are trees all located within grounds of property	No
Are 3 rd Party trees a current or future risk factor?	Yes
Protected Status	
Is the property within a Conservation Area	No
Is the property affected by a Tree Preservation Order	Yes

Conservation Area Status	
Is the site located within a Conservation Area	No
Notes: (i) 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.	
Tree Preservation Order Status	
Are inspected trees subject to a TPO?	Yes
Type of TPO	Area Individual Group Woodland
TPO Reference	TPO-0021-1970 TPO-0776-1996 TPO-1931-2023
Date TPO Made	1970, 1996 & 2023
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) At the time of writing Wokingham Council website indicates trees are the subject of a TPO but not located within a Conservation Area.	

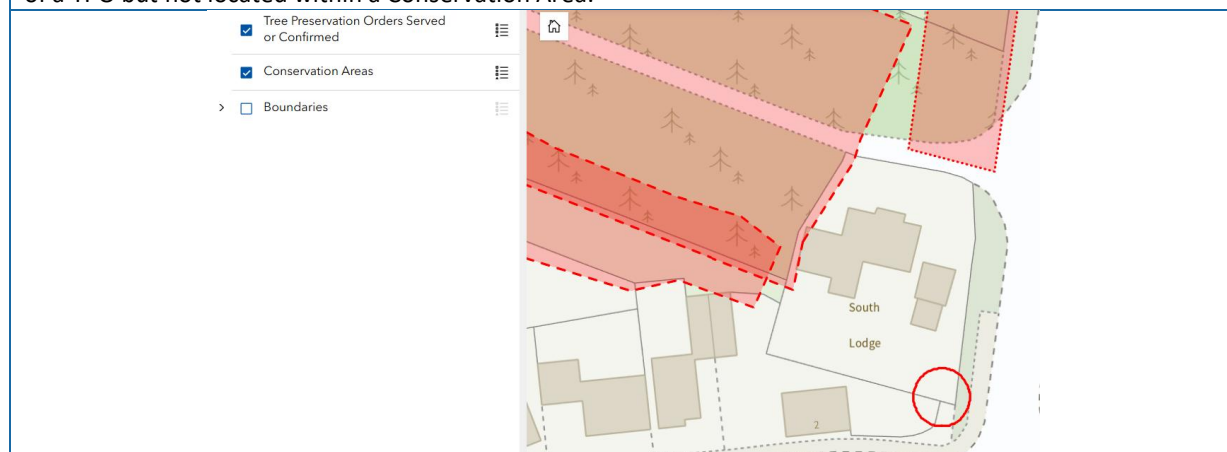


Fig 1 – Trees referenced as T1, T2, T3, T5 & T6 within this report appear subject to a TPO. The property and trees are not located within a Conservation Area.

5. Report Detail

5.1 Causation

- 5.2 **Bedrock Deposits:** London Clay Formation-Clay, silt and sand. These sedimentary rocks are marine in origin. They are detrital and comprise coarse- to fine-grained slurries of debris from the continental shelf flowing into a deep-sea environment, forming distinctively graded beds.
- 5.3 **Superficial Deposits:** River Terrace Deposits, 5-Sand and gravel. These sedimentary deposits are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting).
- 5.4 Subsidence from vegetation and trees occurs when the vegetation dries the underlying soil and if this contains clay it can shrink in size, and the building subsides. The soil then rehydrates during the wet winter months giving classic cyclical movement profiles.
- 5.5 On 6th November 2017 a site investigation was completed. A trial holes referenced as TP/BH1 and was completed. **Note:** 2 x remote boreholes referenced as BH2 and BH3 were completed.

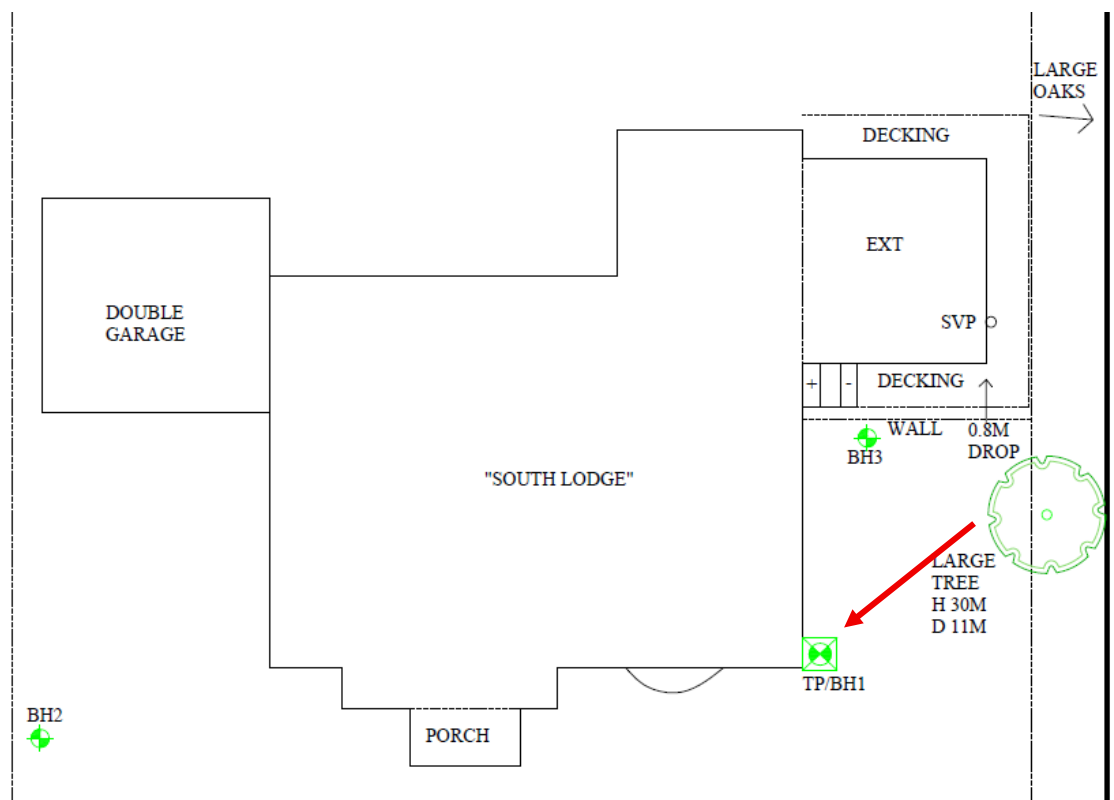


Fig 2 – Site investigation location plan showing locations of TP/BH1 and remote boreholes BH2 and BH3.

- 5.6 TP1 recorded an underside of foundation depth of 750mm. Such a Foundation depth can therefore be confirmed to extend below those to which natural climatic factors could be of influence on an underlying clay soil.

- 5.7 TP1/BH1 was extended to a depth of 5m but a noted collapse occurred at 3.4m. Roots were noted to 3m.
- 5.8 Soils samples were recovered and tested in the laboratory and shown to be of intermediate to high plasticity (BS5930). Driscolls formula details that a soil can be described as desiccated where the moisture content is <40% of the liquid limit. The results relative to these figures are tabulated as follows:

Ref	Date	Depth	MC as % of LL	Desiccation
TP/BH1	Nov 2017	0.75m	40%	No*
TP/BH1	Nov 2017	1.5m	30%	Yes
TP/BH1	Nov 2017	2.5m	26%	Yes

Table 2 – Driscolls formula applied to the supplied sample results and shows desiccation was recorded in TP/BH1 at 1.5m and 2m depths. *Intermediate plasticity soil.

- 5.9 Soils were also subject to suction testing. A peak suction of 498kPa is supportive of the opinion soils are under the influence of vegetation when considered in the context of BRE Digest 412 (Table 1).
- 5.10 11 *Taxodiaceae* roots were recovered from TP/BH1 between depths of 0.75m – 3m. The location of the trial pit relative to the surveyed trees means these will likely originate from T2 (Wellingtonia). Further root testing in 2024 again recovered *Taxodiaceae* samples.
- 5.11 The largest root size recovered was 5mm. Whilst the barrier proposal is slightly offset from the building this root size is supportive of the opinion that the barrier installation will have little impact on the health and stability of T2, if at all.
- 5.12 The location of the trial pits is such that roots from T3 (Oak) or TG1 have not been recovered. It is likely they extend to and below the property. In the case of T3 it is 10.1m from the property. Again, the barrier is offset slightly but at these distances and given the integrity of the remaining rooting area (and proposed tree protection measures detailed on a Tree Protection Plan included within the TPO application) is completely unaffected it is not considered there will be any adverse impact on the health and stability of T3 (Oak) from the proposed barrier.
- 5.13 The localised area of TG1 close to the barrier installation is small Hazel and Laurel (as the noted Yew are on the southern boundary). These trees are not the subject of the TPO and at such small sizes we would not envisage issues associated with the proposal. If required some localised removal of vegetation (of TG1 only) proximate to the barrier installation can be completed.



Fig 3 – TG1 relative to the rear corner of the property. This vegetation is both small and not the subject of the TPO.

5.14 Level monitoring is available monitoring for the period 17.11.2015 to 26.9.2017. 5 sets of readings are available for 7 locations. The readings are made relative to a deep datum.

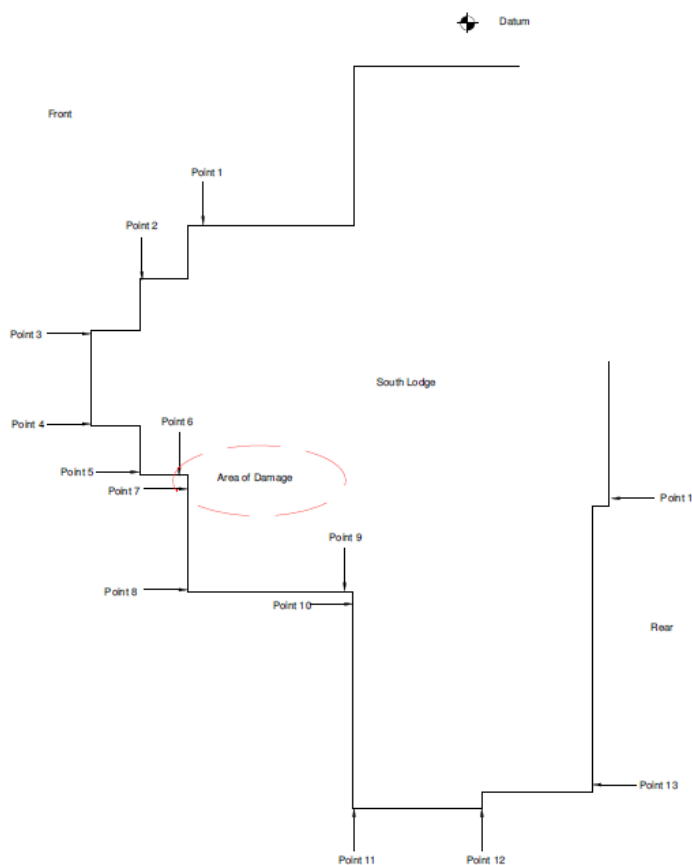


Fig 4 – Advised level monitoring locations.

- 5.15 Level Monitoring is particularly useful in that it can confirm whether movement is being caused by vegetation. Dr Biddle (2009) states *“Where vegetation is involved, it produces a characteristic seasonal pattern of foundation movement; subsidence in the summer reaching a maximum usually in September, followed by upward recovery in the winter. No other cause produces a similar pattern.”*
- 5.16 By reference to the level monitoring and in the event, vegetation was causal in the movement damage I would expect to see downward movement during the summer and early autumn. I would expect to see upward movement during the winter and spring. This is because the influence of the vegetation is at its greatest during the summer months when the tree or trees are actively transpiring, removing moisture from the soil and summer rains are not sufficient to replenish moisture contents. In such situations a clay soil loses overall moisture content, shrinks in size, and a building moves downward. Conversely, in the autumn and spring the trees are dormant and rainfall levels greater. This recharges soil moisture contents allowing upward movement. The pattern then continues until such time that the cause of movement is removed, or a structural intervention (such as the proposed root barrier) is completed.
- 5.17 Monitoring records seasonal movement this is wholly consistent with the role of vegetation on an underlying clay soil. The widespread nature of seasonal movement at the property is supportive of a wide-ranging influence and informs opinion on why insurers are proposing a barrier around the complete property footprint to isolate it completely from the influence of trees located to the west, north and south.

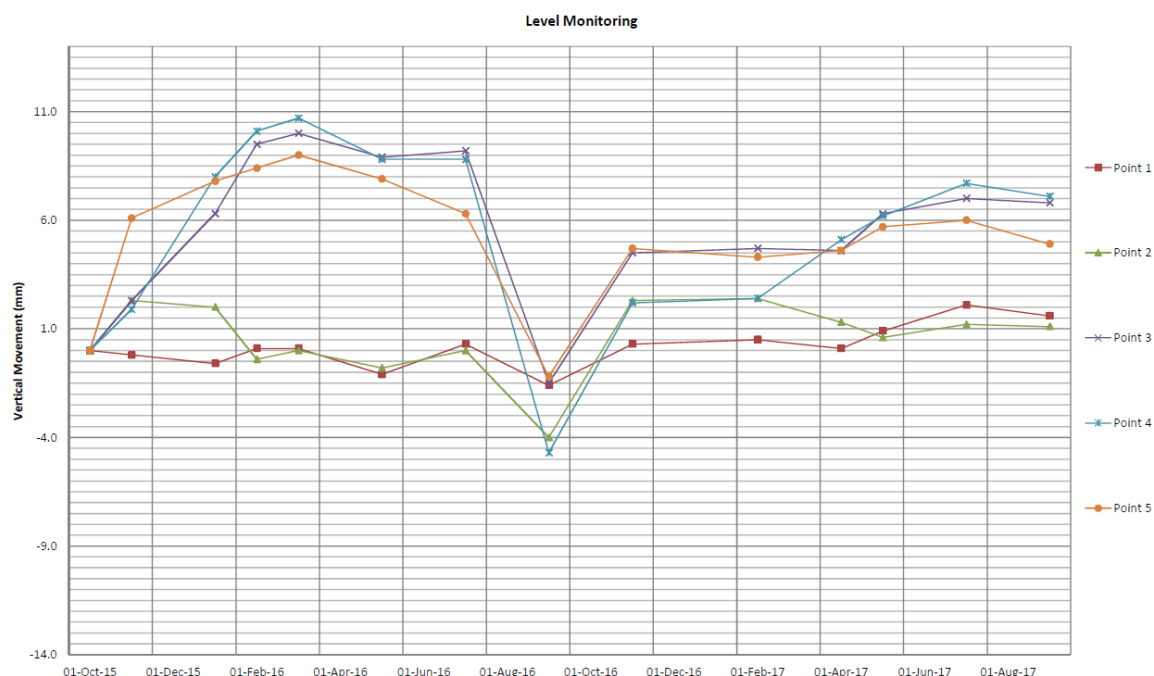


Fig 5 – Level monitoring confirms a pattern of movement consistent with the role of vegetation on the property.

- 5.18 On the basis of the recorded pattern of movement, root identification and underlying soil type it can be said with confidence that the movement damage is vegetation related subsidence.

5.19 Remedy

- 5.20 I am advised that a root barrier is proposed and on this basis no tree works are proposed other than root severance to install the proposed barrier (and potential localised removal of a section of TG1 – not subject to the TPO). Please see the accompanying root barrier specification document (Ref: OPT-9940) for further details. In addition, a statement of response to initial concerns raised regarding isolation of the complete property is included with the application.

5.21 Foreseeability

- 5.22 The trees are under private residential homeownership and the subject of a TPO and as such there are no issues associated with legal foreseeability.

5.23 Tree & Vegetation Management

- 5.24 No pruning or removal is proposed to trees the subject of a TPO other than root severance to facilitate the root barrier. Note: Some localised works to TG1 may be required but these trees are not subject to a TPO.

Is vegetation management likely to contribute to the future stability of the property?	Root Barrier Proposed
Is there a risk of heave if trees are removed? *To be confirmed by case engineer.	No*

6. Recommendations

6.1 Immediate Action

Tree No.	Species	Age Cat	Approx Height (m)	Distance to Building (m)	Ownership	Observations	Subsidence Risk Action	Recommended Tree Work
T1	Oak	B	18	19	TBC - Wellington Court Access Area	Established tree with no history of crown pruning management.	Action to Avoid Future Risk	No works - Root barrier proposed
T2	Wellingtonia	A	24	8.5	TBC - Wellington Court Access Area	Established tree with no history of crown pruning management.	Action to Avoid Future Risk	No works - Root barrier proposed
T3	Oak	B	14	10.1	South Lodge	Established tree with no history of crown pruning management. Ivy managed. Distance to outbuilding. 14m + to property.	Action to Avoid Future Risk	No works - Root barrier proposed
T4	Horse Chestnut	A	9	10	South Lodge	Established tree with no history of crown pruning management. Distance to outbuilding. 14m + to property.	Action to Avoid Future Risk	No works - Root barrier proposed
T5	Oak	A	7.5	6.4	South Lodge	Established tree with no history of crown pruning management.	Action to Avoid Future Risk	No works - Root barrier proposed
Tree Age Category: A = Younger than property; B = Similar age to the property; C = Significantly older than property								

Note: A review of management recommendations to include further works may be required if stability does not return

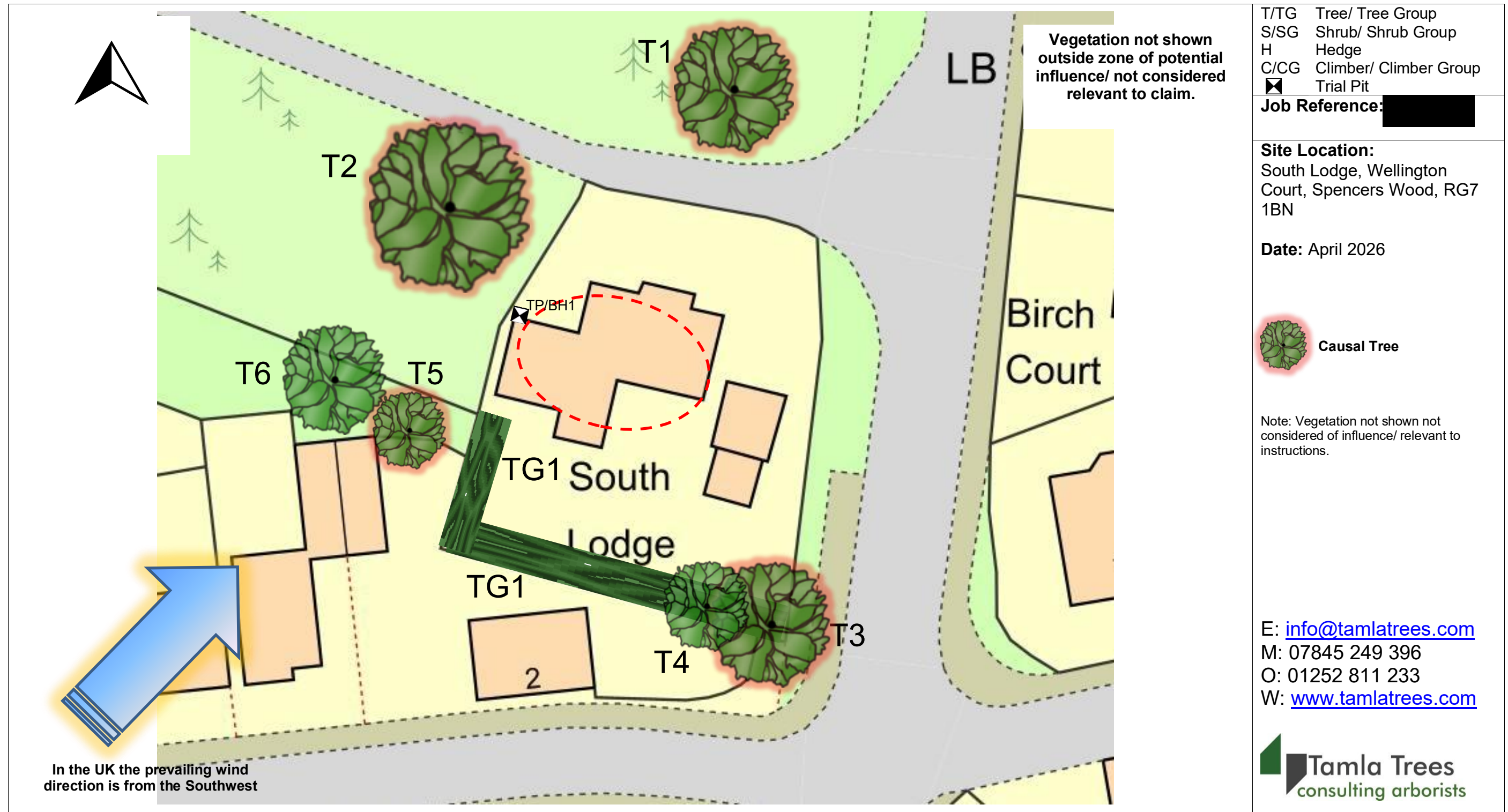
Tree No.	Species	Age Cat	Approx Height (m)	Distance to Building (m)	Ownership	Observations	Subsidence Risk Action	Recommended Tree Work
T6	Oak	A	15	16.7	South Lodge	Established tree with no history of crown pruning management.	Action to Avoid Future Risk	No works - Root barrier proposed
TG1	Yew, Laurel, Hazel	A	6	11.9	South Lodge	Established trees with no history of crown pruning management. Drops to 3.2m at corner.	Action to Avoid Future Risk	Root barrier proposed – Note: localised removal may be required for installation. Trees are not subject to the advised TPO.
Tree Age Category: A = Younger than property; B = Similar age to the property; C = Significantly older than property								

6.2 Future Risk Tree Works

* Estimated

Tree No.	Species	Age Cat	Approx. Height (m)*	Distance to Building (m)	Ownership	Observations	Subsidence Risk Action	Recommended Tree Work
Tree Age Category: A = Younger than property; B = Similar age to the property; C = Significantly older than property								

7. Site Plan



8. Photographs



Image 1 –T2 relative to the property. The largest root size recovered from TP/BH1 (arrow) was 5mm



Image 2 – Rear garden showing spatial distribution of T3 and TG1 relative to the property. T3 is 10.1m from the property.

9. Limitations

This report is intended as a preliminary appraisal of trees >7.5cm dbh, their health and safety condition. The potential influence on the property now and for a period of 5 years as 'future risk' from tree related subsidence. Recommendations for tree works and future management are made to meet the primary objectives of making trees safe and limiting any soil stability/ subsidence issues to the purchase property. In achieving this, it should be appreciated that recommendations may in some cases be contrary to best Arboricultural practice for tree pruning/management and is a necessary compromise between competing objectives.

Tree felling / removal operations must be carried out in a manner that reflects good forestry practice, as set out in the current UK Forestry Standard (UKFS) and BS3998 Tree Works. When preparing tree felling / removal operations, appropriate consideration should always be given for possible impacts on habitats and species, these will include but not limited to (i) Ensuring operations are in compliance with the Conservation of Habitats and Species Regulations 2017 relating to European Protected Species (EPS); and (ii) Ensuring timing of operations (such as in the bird nesting season) are in compliance with the protection of birds under the Wildlife and Countryside Act 1981. (iii) Ensuring the advice of an ecologist is sought as appropriate with all appropriate license requirements (bats) in place prior to the completion of works.

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 any tree 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.