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# BS 5837 : 2012 Pre-development Tree Survey

**Lark Rise, Sutherland Road, Longsdon, Staffordshire, ST9 9QD.**

**Produced for:**
Mr K Shaw
Lark Rise
Sutherland Road
Longsdon
Staffordshire
ST9 9QD

## 1. General notes and introduction

1.1 This survey has been undertaken for Mr K Shaw of Lark Rise, Sutherland Road, Longsdon, Stoke-on-Trent, Staffordshire ST9 9QD

1.2 All the trees in this survey have been surveyed from the ground. The survey is based on a purely visual assessment of the trees. A climbing survey has not been undertaken. Where relevant, specific recommendations for remedial tree surgery works have been included. Such recommendations are valid for a period of 12 months from the date of this inspection, following which it may be necessary to reassess this advice in accordance with sound arboricultural advice.

1.3 The protective status of the trees contained within the survey are believed to be protected by a Tree Preservation Order. Any works to them will require an application to the Local Planning Authority and consent received before any tree work is carried out.

1.4 The survey is to be read in conjunction with the associated survey site plan on page 10, referenced as: **5.0 Lark Rise Tree Constraints Plan** and details tree number, Root Protection Area and colour coded tree value.

## 2. Tree survey assessment notes

2.1 This tree survey has been structured to accord with the requirements of Sections 4.4 and 4.5 of British Standard 5837 of 2012: *Trees in relation to design, demolition and construction – recommendations*. The columns in the tree survey assessment refer to the following items:

**Tree/Group number:** Tree reference number as shown on drawing.

**Common name *Botanical name*:** Identifies individual species by common name. For avoidance of doubt the botanical name is shown *in italics*.

**Tree height:** Estimated height of the tree in metres.

**Stem diameter:** Diameter of the trunk(s) measured in accordance with Annex C of the Standard and expressed in millimetres.

**Branch spread:** Measured radial spread of the crown broken down into the four main compass points and expressed in metres.

**Height above ground level of:** Estimated measurement (in metres) to inform on ground clearance, crown/stem ratio and shading presented in two sub-categories:

- First significant branch (at point of attachment with parent stem) and direction of growth (eg 2.4 N).
- Canopy ie assessment of clearance above ground of lowest branch tips. Where irregular, and potentially significant towards development proposal, direction of assessed crown height has been added.

**NB:** For tree height, stem diameter and branch spread, the measurement conventions are as follows:

- Height and crown spread are recorded to the nearest half metre (crown spread being rounded up) for dimensions up to 10m and the nearest whole metre for dimensions over 10m.
- Stem diameter is recorded in millimetres (using a calibrated girth tape), rounded up to the nearest 10mm (0.01m).
- Estimated dimensions (eg for off site or otherwise inaccessible trees where accurate data cannot be recovered) are identified by being suffixed with a #.

**Life stage:** The estimated age: young, semi mature, early mature, mature or over mature, shown as Y, SM, EM, M or OM respectively.

**Physiological condition:** Physiological condition being good, fair, poor or dead, shown as A, B, C or D respectively.

**Structural condition:** Structural condition being good, fair, poor or dangerous (eg collapsing, the presence of decay and physical defects), shown as A, B, C or D respectively.

**General observations, including preliminary management recommendations:** Particularly of structural and/or physiological condition, including further investigations of suspected defects that require more detailed assessment and potential for wildlife habitat.

**Estimated remaining contribution in years (RC):** <10, 10–20, 20–40 or >40.

**Retention category:** Categorisation of survey trees in accordance with Section 4.5 and Table 1 of the Standard.

- **U (dark red)**: Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

  Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (eg where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).

  Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.

  Trees infected with pathogens of significance to the health and/or safety of other trees nearby or very low quality trees suppressing adjacent trees of better quality.

  NOTE: Category U trees can have existing or potential conservation value that it might be desirable to preserve.

- **A (light green):** Trees of high quality with an estimated remaining life expectancy of at least 40 years.

  **Mainly arboricultural qualities:** Trees that are particularly good examples of their species, especially if rare or unusual, or those that are essential components of groups or of formal or semi-formal arboricultural features (eg the dominant and/or principal trees within an avenue). Indicated by 1 in brackets after the appropriate category classification.

  **Mainly landscape qualities:** Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features. Indicated by 2 in brackets after the appropriate category classification.

  **Mainly cultural values, including conservation:** Trees, groups or woodlands of significant conservation, historical, commemorative or other value (eg veteran trees or wood-pasture). Indicated by 3 in brackets after the appropriate category classification.

  Trees with an estimated remaining life expectancy of at least 20 years.

- **B (mid blue):**

  **Mainly arboricultural qualities:** Trees that might be included in category A, but are downgraded because of impaired condition (eg presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years or trees lacking the special quality necessary to merit the category A designation. Indicated by 1 in brackets after the appropriate category classification.

  **Mainly landscape qualities:** Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives, but situated so as to make little visual contribution to the wider locality. Indicated by 2 in brackets after the appropriate category classification.

  **Mainly cultural values, including conservation:** Trees with material conservation or other cultural value. Indicated by 3 in brackets after the appropriate category classification.

- **C (grey):** Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.

  **Mainly arboricultural qualities:** Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. Indicated by 1 in brackets after the appropriate category classification.

  **Mainly landscape qualities:** Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value and/or trees offering low or only temporary/transient landscape benefits. Indicated by 2 in brackets after the appropriate category classification.

  **Mainly cultural values, including conservation:** Trees with no material conservation or other cultural value. Indicated by 3 in brackets after the appropriate category classification.

## 3. Root protection area

3.1 The root protection area table below shows the root protection area for each tree surveyed, together with the radius of the nominal circle, which have been calculated using the formulae set out in BS5837:2012.

| Tree number | Common name<br>*Botanical name* | Stem diameter (mm) | Radius of nominal circle (m) | Root protection area ($m^2$) |
|---|---|---|---|---|
| 1 | Common Beech<br>*Fagus sylvatica* | 670 | 8.10 | 206 |
| 2 | Rowan<br>*Sorbus aucuparia* | 190 | 2.40 | 18 |
| 3 | Silver Birch<br>*Betula pendula* | 330 | 3.9 | 48 |

## 4. Overview

4.1 The trees within this survey located at Lark Rise, Sutherland Road, Longsdon have grown for many years with little on-going maintenance or woodland management, with close spacing between trees having resulted in suppression of canopies and poor branch production. Trees require space not only to establish canopy foliage but also stabilizing roots, with the corresponding small canopies also having a direct association to the size and support of the root system.

4.2 The Beech T1 (colour coded value as R/Red) contains a significant structural defect within the main fork at 2m, which has compromised tree structure and stability and should therefore be removed as it is an unacceptable risk to people and property within its area of influence. It is believed that the Tree Officer Steve Massey has been out to site and inspected the tree and has already given the agreement to remove this tree, which should be undertaken as a priority. The removal of T1 will remove and risk or influence towards the proposed garage.

4.2 Trees T2 Rowan & T3 Birch, (colour coded value as C/Grey) are all set back from the current driveway and are located upon the high raised bank. These trees are of limited form due to close competition from off-site neighbouring trees as they have grown and are of low contributing years within the BS 5837 : 2012 valuation structure. Their retention and possible replacement for trees of better form should be a considered within any future landscaping scheme. These trees do not have any RPA encroachment into the proposed development area.

Signed:



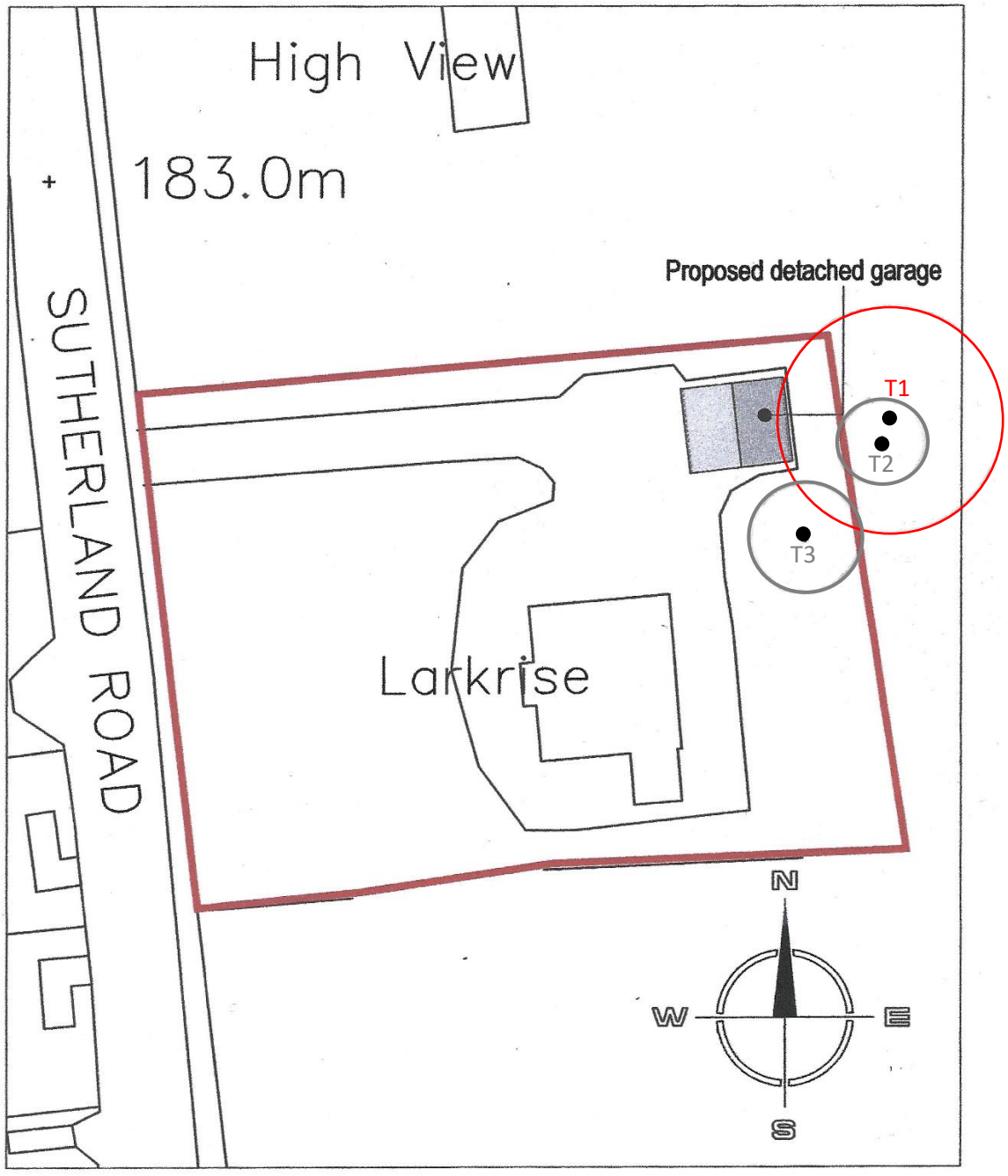
**Tom Morrison BSc (Hons) Forestry, MArborA**
**Tree Development Surveys and Consultancy**

Tree numbers 1 to 3 were inspected by Tom Morrison of Tree Development Surveys and Consultancy on 23rd May 2022 from ground level only. Weather conditions were clear and dry resulting in good visibility from ground level.

| Tree/ Group number | Common name *Botanical name* | Tree height (m) | Stem diameter (mm) | Branch spread (m) | Height above ground level (m) of: First branch | Canopy | Life stage | General observations, including preliminary management recommendations: Physiological condition | Structural condition | | RC (years) | Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Common Beech *Fagus sylvatica* | 17 | 670 | N 2.5<br>E 7<br>S 5.5<br>W 5.5 | 3 W | 2 | EM | A/B | D | A compromised tree set back within wood and located on a raised bank above the current drive way and proposed garage. The was twin stemmed at 2m, with one of the large stems having been removed. The remaining fork contains a large fissure and significant point of weakness that descends for 2m to ground level. This tree is at risk of failure to the parking area and requires removal as a priority.<br>**Remove tree on safety grounds.** | 0>10 | R |
| 2 | Rowan *Sorbus aucuparia* | 9 | 190 | N 0.5<br>E 0<br>S 21<br>W 1.5 | 2 | 2.5 | SM | B | B/C | A young tree being with a limited single stem and a canopy of sparse lower foliage growing beneath dominant Beech, tree has had little space to grow without significant suppression and will probably not have the structural stability to stand alone once the Beech (T1) has been removed.<br>**Unlikely to stand alone once the Beech has been removed and may suffer from windblow. Consider removal and replanting.** | 10-20 | C (2) |

| Tree/ Group number | Common name *Botanical name* | Tree height (m) | Stem diameter (mm) | Branch spread (m) | Height above ground level (m) of: First branch | Canopy | Life stage | General observations, including preliminary management recommendations: Physiological condition | Structural condition | | RC (years) | Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Silver Birch *Betula pendula* | 10 | 330 | N 2.5<br>E 2.5<br>S 2.5<br>W 2.5 | 9 | 9 | EM | B | B | Located on a high raised bank, being a contorted single stem with little canopy production. The tree has grown with significant canopy competition and is a mediocre tree at best.<br>**Currently requires no work.** | 10-20 | C (2) |

# 5.0 Lark Rise Tree Constraints Plan




SITE LAYOUT PLAN 1:500

1:500

10m 0 10m 20m 30m 40m 50m

# BS 5837 : 2012 Arboricultural Impact Assessment

## Lark Rise, Sutherland Road, Longsdon, Staffordshire, ST9 9QD.

6.0 The proposed garage development at Lark Rise, Sutherland Road, Longsdon is proposed to stand upon ground that is level with the existing house, with the survey trees being set back and within a raised bank. The footprint area for the proposed garage is existing and does not require any lateral excavation of the bank or encroachment into the tree rooting areas (RPA) of T2 & T3.

6.1 Tree T1 (Beech) does show some RPA conflict on Tree Constraints Plan, but this does not account for the significant drop in ground level between the tree and lower level of the proposed garage that is in excess of 2m, *see photo 1 on page 12*. Should the tree have been suitable for retention, there would have been little if any conflict with actual roots. However, the tree contains a significant structural defect and requires removal on health and safety grounds as a priority. Photo 2 on page 12 shows the structural defect within the trunk that will lead to failure of the remaining stem if not removed. With T1 removed there will be no RPA conflict. From discussion with the property owner, Mr Shaw, it is believed that the SMDC tree officer Steve Massey has already inspected the tree and given approval for its removal.

6.2 Both T2 and T3 are also set back and within raised ground from the proposed development and have no RPA encroachment or conflict with the proposed garage. As they are set within the raised/higher ground, the bank will act as a protective barrier and therefore there is no need for Tree Protective Fencing (see photo 2). Some soil loss of the upper bank has occurred (see photo 2), but this has not affected the roots of T3.

6.3 The position of the proposed garage does not encroach or conflict with the existing trees and is therefore acceptable on Arboricultural grounds.

Signed:



**Tom Morrison BSc (Hons) Forestry, MArborA**
**Tree Development Surveys and Consultancy**

# Photos of existing ground conditions at Lark Rise




Photo 1 – showing T1, T2 & T3 and existing ground conditions.



Photo 2 – Beech T1, structural fissure descending trunk.