Acorn
ARBORICULTURE

ARBORICULTURAL REPORT

At:
27 Intake Lane
Gawber
Barnsley
S75 2HX

For:

Craig Fenton

March 2015

1 Purpose & Brief

1.1 We have been commissioned to provide arboricultural advice on two trees to the front of the subject property.

1.2 This report can be used to inform the land owner regarding appropriate tree management.

1.3 **Documents provided:** None

2 Statutory Controls

2.1 A check was made with the Local Planning Authority on the 23/03/2015. **This check revealed that there is a TPO on the site. This means that the consent of the Local Planning Authority is required before undertaking any work prescribed in this report.**

2.2 The site is not within a Conservation Area.

2.3 The Wildlife and Countryside Act 1981 (together with the amendments of 1985 & 1991, the subsequent variations to the schedule orders, and strengthening amendments made within the Countryside and Rights of Way Act 2000) forms the basis for legislation protecting Britain's flora and fauna. Nesting birds and all species of bat are afforded statutory protection. It is therefore important to be vigilant when implementing tree and woodland management operations and an appropriate level of risk assessment should be carried out in consideration of the following:

- disturbing a nesting bird
- disturbing a roosting bat or damaging, destroying or blocking access to a bat roost
- intentionally killing, injuring or taking a bat
- being in possession or control of a bat or anything derived from a bat

3 SURVEY DETAILS

3.1 Surveyor/s

3.1.1 Mark Jennings HND Arboriculture

3.2 Date of Survey

3.2.1 14 March 2015

3.3 Weather Conditions

3.3.1 Dry ground conditions, cold, no wind, some cloud.

3.4 Site Description

3.4.1 This site currently comprises of a detached property that was constructed around 2009. The surroundings are generally residential with houses being typical to the area and the period in which they were built.

3.4.2 The southern boundary is defined by fencing, the eastern boundary is also fencing, and the western boundary which abuts the highway is made up of walling. The garden area to the front of the property is made up of paviours, walling and an area of soil. Apart from the two trees there is no other significant vegetation present in the front garden.

3.5 Data Collection

3.5.1 The arboricultural survey was undertaken in accordance with a VTA (Visual Tree Assessment). This included a climbed inspection.

3.5.2 Details of all relevant vegetation were assessed and these details are presented at section 7.

3.5.3 The positions of T1 and T2 are shown in the plan appended to this report.

4 FINDINGS

4.1 Two trees, T1 Beech and T2 Sycamore were surveyed. A summary of the tree dimensions, condition and risk posed from them etc. is provided in the next section.

4.2 The two trees are visible in the streetscene and fairly large specimens. T1 Beech in particular is a prominent specimen within the streetscene, and due to its position in the landscape holds high amenity value.

4.3 T1 is located to the front of the property and is approximately 5m from the corner of the dwelling, it is mature of age and has been pruned in the past. The crown of this has been over lifted in the past due to the close proximity of the property to the tree. There are consequently numerous pruning wounds on the trunk of varying sizes on all sides.

4.4 The lowest wound on the tree is approximately 4m from the ground level on the western side of the trunk. This wound is approximately 30cm in width, up to 30cm vertically and extends 18cm in to the tree. Surrounding to the wound is occluded bark but a detailed inspection leads me to believe that decay is not being successfully contained due to observed adaptive or lack of adaptive growth in the trunk within the vicinity of the wound.

4.5 At approximately 1.5m above this wound on the western side of the trunk is a major branch that extends over the highway. It has formed a reasonable union but the branch is very heavily weighted with all growth and weight concentrated over the road.

4.6 Photographs (see below) show cavities that are located on the east and south side of the trunk of varying degrees of size. These wounds extend between 5cm and 18cm in to the tree, all have stimulated occlusion material but none of them appear to have contained the decay in line with CODIT. This possibly could be due to the trees age, location, past pruning methods and stress related issues due to the past development.

4.7 In the upper canopy is evidence of pruning wounds and some of these have started to occlude. However overall the amount of pruning and wounding to the tree is significant with regards to long term tree retention, its reduced integrity and the increased risk of harm from failure.

4.8 Typically the outer extension growth of the tree is between 2cm and 4cm. Although beech are not renowned for growing quickly, the annual extension growth in typically healthy specimens is up to 24cm and so this tree has produced well below average extension growth.

4.9 The below average extension growth may be attributable to root damage associated with development on the site. In addition the rooting habitat is not conducive to sustaining large trees. For instance the underlying soils within the road etc. will be inhospitable to tree roots.

4.10 Bringing the issues together it is my belief that there is an elevated risk of harm from tree failure due to tree stress etc. For instance large scale beech trees are well known to shed limbs at weak branch unions and end loaded branches.

4.11 It cannot be recommended as viable to remove large or many limbs to reduce risk of harm due to the adverse impact upon the tree from decay forming from the wounding caused and non-compliance with BS3998 (2010). Therefore whilst it is appreciated that the tree does have amenity value, the concern for safety must be an over-riding factor.

4.12 It is therefore recommended that he tree be felled and replaced. The recommended replacement is Lime (*Tilia cordata* 'Rancho'), 12-14cm in girth and planted to the front of the property.

4.13 T2 twin stemmed Sycamore unfortunately has a number of structural issues present at this time, that may in future compromise its retention. It is at the front of the property and has been over crown lifted in the past. There are numerous pruning wounds which has stimulated reaction growth as the tree is attempting to reform its crown.

4.14 An area if soft bark was discovered suggesting highly dysfunctional underlying wood. In addition the tree has suffered root damage as a result of development. Given the issues and reduced amenity value of the tree its removal is a reasonable proposition as it could be replaced at the same time as T1. Presently though it can be retained short term.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 T1 is a large specimen with a number of structural faults. In addition it would appear that it may have been damaged due to development as the alteration of land levels, erection of retaining walls and hard landscape features within likely rooting zone is evident.

5.2 The size of T1, its lack of vitality, the species and previous management lead me to believe that there is a predisposition to predictable failure. This failure will likely manifest itself as one of large branch falling onto the public highway.

5.3 Retention of T1 as it is now is not considered to be a viable long term management option due to the risk of foreseeable harm.

5.4 Pruning the tree to reduce risk of harm to the public highway was considered but ruled out due to the harm that such pruning would do likely do to the physiological condition of the tree and implications on retention, further harm its vitality and the harm that such pruning would likely have on amenity value. For instance it is usually appropriate in arboriculture that the removal trees is preferable to significant pruning; crown reduced trees for instance would for the rest of their lives require continual re-reduction work for the rest of the lifespan of the tree whilst making the tree look artificial in the landscape. Further it is considered that the expense for such work would be unreasonable for the tree owner.

5.5 It is therefore recommend that T1 is removed and replaced and it is considered that, given the circumstances, that this is a reasonable approach which should be supported by the Local Planning Authority due tho the likelihood of foreseeable harm if, for instance, felling the tree is refused.

5.6 The Sycamore T2 is in a similar physiological condition to the beech but is considered to be an acceptable liability posed on the tree owner at present. However the tree should be monitored and reassessed annually to ascertain the progression of decay and the tree may require removal in the near future. Consideration should be given, if the LPA support the removal of T1, to also allow removal of T2 as two *Tilia cordata* "Rancho" which would planted as a pair and provide good amenity value in the futre and continuation of treescape.

6 Tree Schedule

Item No.	Species	Height (m)	DBH (mm)	Age (years)	Life Expectancy (years)	Physiological Condition	Risk of significant harm from tree failure
T1	Beech *Fagus sylvatica*	18+	700	80+	<10	Poor	Moderate
Notes: Visible tree, pruning wounds evident, cavities, high crown. Development damage, over lifted and over pruned. See main assessment						**Recommendations:** Remove tree and replace with a Lime	

Item No.	Species	Height (m)	DBH (mm)	Age (years)	Life Expectancy (years)	Physiological Condition	Risk of significant harm from tree failure
T2	Sycamore *Acer pseudoplatanus*	18	700	70+	10	Poor	Moderate
Notes: Located to the front of the property, it is mature of age and it has been excessively crown lifted, this has stimulated reaction growth on the trunk, in an attempt to re -form a crown. Many large wounds on the trunk that have not successfully occluded and decay is present. Tree forms a twin crown unfortunately the bark has become soft and is coming away, suggesting dysfunctional tissue is present beneath. Root damage may be present due development. Visually this tree ceases to have the amenity value it had prior to the development.						**Recommendation:** No action at this time, monitor soft bark Tissue, check old pruning wounds to Establish any further progression of decay. Consider removal in future and replacing with a fastigiated tree to reduce conflict with the dwelling	

General Guidelines and Terms and Conditions

1. All tree work should be carried out by qualified Arboricultural Contractors with at least £1 Million Public Liability Insurance cover.

2. Tree work must be carried out to BS 3998 which specifies recommendations for tree work.

3. The acceptance of this report constitutes an agreement with the terms and guidelines listed within this report.

4. No liability can be accepted by the consultant in respect of the trees unless the recommendations within this report are carried out under his supervision. Nor shall the consultant be responsible for events which happen after the time of the survey due to factors which were not evident at the time.

5. Tree work is inherently dangerous and should only be undertaken by insured, qualified contractors the following contractor is suitably qualified and insured to carry out tree works. Salter Tree Services, Office-01226 384854, Mobile-07967203471

6. This report, plan and associated digital files remain the copyright of Acorn Arboriculture and the transfer of rights to any third party must be with our express written consent.

Glossary of Arboricultural Terms

Abscission. The shedding of a leaf or other short-lived part of a woody plant, involving the formation of a corky layer across its base; in some tree species twigs can be shed in this way

Abiotic. Pertaining to non-living agents; e.g. environmental factors

Absorptive roots. Non-woody, short-lived roots, generally having a diameter of less than one millimetre, the primary function of which is uptake of water and nutrients

Adaptive growth. In tree biomechanics, the process whereby the rate of wood formation in the cambial zone, as well as wood quality, responds to gravity and other forces acting on the cambium. This helps to maintain a uniform distribution of mechanical stress

Adaptive roots. The adaptive growth of existing roots; or the production of new roots in response to damage, decay or altered mechanical loading

Adventitious shoots. Shoots that develop other than from apical, axillary or dormant buds; see also 'epicormic'

Anchorage. The system whereby a tree is fixed within the soil, involving cohesion between roots and soil and the development of a branched system of roots which withstands wind and gravitational forces transmitted from the aerial parts of the tree

Architecture. In a tree, a term describing the pattern of branching of the crown or root system

Axil. The place where a bud is borne between a leaf and its parent shoot

Bacteria. Microscopic single-celled organisms, many species of which break down dead organic matter, and some of which cause diseases in other organisms

Bark. A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm; occasionally applied only to the periderm or the phellem

Basidiomycotina (Basidiomycetes). One of the major taxonomic groups of fungi; their spores are borne on microscopic peg-like structures (basidia), which in many types are in turn borne on or within conspicuous fruit bodies, such as brackets or toadstools. Most of the principal decay fungi in standing trees are basidiomycetes

Bolling. A term sometimes used to describe pollard heads

Bottle-butt. A broadening of the stem base and buttresses of a tree, in
excess of normal and sometimes denoting a growth response to weakening in that region, especially due to decay involving selective delignification

Bracing. The use of rods or cables to restrain the movement between parts of a tree

Branch:

- **Primary.** A first order branch arising from a stem
- **Lateral.** A second order branch, subordinate to a primary branch or stem and bearing sub-lateral branches
- **Sub-lateral.** A third order branch, subordinate to a lateral or primary branch, or stem and usually bearing only twigs

Branch bark ridge. The raised arc of bark tissues that forms within the acute angle between a branch and its parent stem

Branch collar. A visible swelling formed at the base of a branch whose diameter growth has been disproportionately slow compared to that of the parent stem; a term sometimes applied also to the pattern of growth of the cells of the parent stem around the branch base

Brown-rot. A type of wood decay in which cellulose is degraded, while lignin is only modified

Buckling. An irreversible deformation of a structure subjected to a bending load

Buttress zone. The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of the junctions

Cambium. Layer of dividing cells producing xylem (woody) tissue internally and phloem (bark) tissue externally

Canker. A persistent lesion formed by the death of bark and cambium dueto colonisation by fungi or bacteria

Canopy species. Tree species that mature to form a closed woodland canopy

Cleaning out. The removal of dead, crossing, weak, and damaged branches, where this will not damage or spoil the overall appearance of the tree

Compartmentalization. The confinement of disease, decay or other dysfunction within an anatomically discrete region of plant tissue, due to passive and/or active defences operating at the boundaries of the affected
region

Compression fork. An acute angled fork that is mechanically optimised for the growth pressure that two ormore adjacent stems exert on each other.

Compression strength. The ability of a material or structure to resist failure when subjected to compressive loading; measurable in trees with special drilling devices

Compressive loading. Mechanical loading which exerts a positive pressure; the opposite to tensile loading

Condition. An indication of the physiological vitality of the tree. Where the term 'condition' is used in a report, it should not be taken as an indication of the stability of the tree

Construction exclusion zone. Area based on the Root Protection Area (in square metres) to be protected during development, by the use of barriers and/or ground protection

Crown/Canopy. The main foliage bearing section of the tree

Crown lifting. The removal of limbs and small branches to a specified height above ground level

Crown thinning. The removal of a proportion of secondary branch growth throughout the crown to produce an even density of foliage around a wellbalanced branch structure

Crown reduction/shaping. A specified reduction in crown size whilst preserving, as far as possible, the natural tree shape

Crown reduction/thinning. Reduction of the canopy volume by thinning to remove dominant branches whilst preserving, as far as possible the natural tree shape

Deadwood. Dead branch wood

Decurrent. In trees, a system of branching in which the crown is borne on a number of major widely-spreading limbs of similar size (cf. excurrent). In fungi with toadstools as fruit bodies, the description of gills which run some distance down the stem, rather than terminating abruptly

Defect. In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment

Delamination. The separation of wood layers along their length, visible as longitudinal splitting

Dieback. The death of parts of a woody plant, starting at shoot-tips or roottips

Disease. A malfunction in or destruction of tissues within a living organism, usually excluding mechanical damage; in trees, usually caused by pathogenic micro-organisms

Distal. In the direction away from the main body of a tree or subject organism (cf. proximal)

Dominance. In trees, the tendency for a leading shoot to grow faster or more vigorously than the lateral shoots; also the tendency of a tree to maintain a taller crown than its neighbours

Dormant bud. An axial bud which does not develop into a shoot until after the formation of two or more annual wood increments; many such buds persist through the life of a tree and develop only if stimulated to do so

Dysfunction. In woody tissues, the loss of physiological function, especially water conduction, in sapwood

DBH (Diameter at Breast Height). Stem diameter measured at a height of 1.5 metres (UK) or the nearest measurable point.

Where measurement at a height of 1.5 metres is not possible, another height may be specified

Deadwood. Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree.
Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard

Endophytes. Micro-organisms which live inside plant tissues without causing overt disease, but in some cases capable of causing disease if the tissues become physiologically stressed, for example by lack of moisture

Epicormic shoot. A shoot having developed from a dormant or adventitious bud and not having developed from a first year shoot

Excrescence. Any abnormal outgrowth on the surface of tree or other organism

Excurrent. In trees, a system of branching in which there is a well defined central main stem, bearing branches which are limited in their length, diameter and secondary branching (cf. decurrent)

Fastigiate. Having upright, often clustered branches

Felling licence. In the UK, a permit to fell trees in excess of a stipulated number of stems or volume of timber

Flush-cut. A pruning cut which removes part of the branch bark ridge and or branch-collar

Girdling root. A root which circles and constricts the stem or roots possibly causing death of phloem and/or cambial tissue

Guying. A form of artificial support with cables for trees with a temporarily inadequate anchorage

Habit. The overall growth characteristics, shape of the tree and branch structure

Hazard beam. An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting

Heartwood/false-heartwood/ripewood. Sapwood that has become dysfunctional as part of the natural aging processes

Heave. A term mainly applicable to a shrinkable clay soil which expands due to re-wetting after the felling of a tree which was previously extracting moisture from the deeper layers; also the lifting of pavements and other structures by root diameter expansion; also the lifting of one side of a windrocked root-plate

High canopy tree species. Tree species having potential to contribute to the closed canopy of a mature woodland or forest

Incipient failure. In wood tissues, a mechanical failure which results only in deformation or cracking, and not in the fall or detachment of the affected part

Included bark (ingrown bark). Bark of adjacent parts of a tree (usually forks, acutely joined branches or basal flutes) which is in face-to-face contact

Increment borer. A hollow auger, which can be used for the extraction of wood cores for counting or measuring wood increments or for inspecting the condition of the wood

Infection. The establishment of a parasitic micro-organism in the tissues of a tree or other organism

Internode. The part of a stem between two nodes; not to be confused with a length of stem which bear nodes but no branches

Lever arm. A mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or an individual branch

Lignin. The hard, cement-like constituent of wood cells; deposition of lignin within the matrix of cellulose microfibrils in the cell wall is termed Lignification

Lions tailing. A term applied to a branch of a tree that has few if any side-branches except at its end, and is thus liable to snap due to endloading

Loading. A mechanical term describing the force acting on a structure from a particular source; e.g. the weight of the structure itself orwind pressure

Longitudinal. Along the length (of a stem, root or branch)

Lopping. A term often used to describe the removal of large branches from a tree, but also used to describe other forms of cutting

Mature Heights (approximate):
- **Low maturing** – less than 8 metres high
- **Moderately high maturing** – 8 – 12 metres high
- **High maturing** – greater than 12 metres high

Microdrill. An electronic rotating steel probe, which when inserted into woody tissue provides a measure of tissue density

Minor deadwood. Deadwood of a diameter less than 25mm and or unlikely to cause significant harm or damage upon impact with a target beneath the tree

Mulch. Material laid down over the rooting area of a tree or other plant to help conserve moisture; a mulch may consist of organic matter or a sheet of plastic or other artificial material

Mycelium. The body of a fungus, consisting of branched filaments
(hyphae)

Occluding tissues. A general term for the roll of wood, cambium and bark that forms around a wound on a woody plant (cf. woundwood)

Occlusion. The process whereby a wound is progressively closed by the formation of new wood and bark around it

Pathogen. A micro-organism which causes disease in another organism

Photosynthesis. The process whereby plants use light energy to split hydrogen from water molecules, and combine it with carbon dioxide to form the molecular building blocks for synthesizing carbohydrates and other biochemical products

Phytotoxic. Toxic to plants

Pollarding. The removal of the tree canopy, back to the stem or primary
branches, usually to a point just outside that of the previous cutting.
Pollarding may involve the removal of the entire canopy in one operation, or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to re-pollard on a regular basis, annually in the case of some species

Primary branch. A major branch, generally having a basal diameter greater than 0.25 x stem diameter

Primary root zone. The soil volume most likely to contain roots that are critical to the health and stability of the tree and normally defined by reference BS5837 (2012)

Probability. A statistical measure of the likelihood that a particular event might occur

Proximal. In the direction towards from the main body of a tree or other living organism (cf. distal)

Pruning. The removal or cutting back of twigs or branches, sometimes applied to twigs or small branches only, but often used to describe most activities involving the cutting of trees or shrubs

Radial. In the plane or direction of the radius of a circular object such as a tree stem

Rams-horn. In connection with wounds on trees, a roll of occluding tissues which has a spiral structure as seen in cross-section

Rays. Strips of radially elongated parenchyma cells within wood and bark.

The functions of rays include food storage, radial translocation and contributing to the strength of wood

Reactive Growth/Reaction Wood. Production of woody tissue in response to altered mechanical loading; often in response to internal defect or decay and associated strength loss (cf. adaptive growth)

Removal of dead wood. Unless otherwise specified, this refers to the removal of all accessible dead, dying and diseased branchwood and broken snags

Removal of major dead wood. The removal of, dead, dying and diseased branchwood above a specified size **Respacing.** Selective removal of trees from a group or woodland to provide space and resources for the development of retained trees.

Residual wall. The wall of non-decayed wood remaining following decay of internal stem, branch or root tissues

Ring-barking (girdling). The removal of a ring of bark and phloem around the circumference of a stem or branch, normally resulting in an inability to transport photosynthetic assimilates below the area of damage. Almost inevitably results in the eventual death of the affected stem or branch above the damage.

Root-collar. The transitional area between the stem/s and roots

Root-collar examination. Excavation of surfacing and soils around the root-collar to assess the structural integrity of roots and/or stem

Root protection area. An area of ground surrounding a tree that contains sufficient rooting volume to ensure the tree's survival. Calculated with reference BS5837 (2012) and shown in plan form in square metres

Root zone. Area of soils containing absorptive roots of the tree/s described.

The **Primary** root zone is that which we consider of primary importance to the physiological well-being of the tree

Sapwood. Living xylem tissues

Secondary branch. A branch, generally having a basal diameter of less than 0.25 x stem diameter

Selective delignification. A kind of wood decay (white-rot) in which lignin is degraded faster than cellulose

Shedding. In woody plants, the normal abscission, rotting off or sloughing of leaves, floral parts, twigs, fine roots and bark scales

Silvicultural thinning. Removal of selected trees to favour the development of retained specimens to achieve a management objective

Simultaneous white-rot. A kind of wood decay in which lignin and
cellulose are degraded at about the same rate

Snag. In woody plants, a portion of a cut or broken stem, branch or root which extends beyond any growing-point or dormant bud; a snag usually tends to die back to the nearest growing point

Soft-rot. A kind of wood decay in which a fungus degrades cellulose within the cell walls, without any general degradation of the wall as a whole

Spores. Propagules of fungi and many other life-forms; most spores are microscopic and dispersed in air or water

Shrub species. Woody perennial species forming the lowest level of woody plants in a woodland and not normally considered to be trees

Sporophore. The spore bearing structure of fungi

Sprouts. Adventitious shoot growth erupting from beneath the bark

Stem/s. The main supporting structure/s, from ground level up to the first major division into branches

Stress. In plant physiology, a condition under which one or more physiological functions are not operating within their optimum range, for example due to lack of water, inadequate nutrition or extremes of temperature

Stress. In mechanics, the application of a force to an object

Stringy white-rot. The kind of wood decay produced by selective delignification

Storm. A layer of tissue which supports the fruit bodies of some types of fungi, mainly ascomycetes

Structural roots. Roots, generally having a diameter greater than ten millimetres, and contributing significantly to the structural support and stability of the tree

Subsidence. In relation to soil or structures resting in or on soil, a sinking due to shrinkage when certain types of clay soil dry out, sometimes due to extraction of moisture by tree roots

Subsidence. In relation to branches of trees, a term that can be used to describe a progressive downward bending due to increasing weight

Taper. In stems and branches, the degree of change in girth along a given length

Target canker. A kind of perennial canker, containing concentric rings of dead occluding tissues

Targets. In tree risk assessment (with slight misuse of normal meaning)
persons or property or other things of value which might be harmed by
mechanical failure of the tree or by objects falling from it

Topping. In arboriculture, the removal of the crown of a tree, or of a major proportion of it

Torsional stress. Mechanical stress applied by a twisting force

Translocation. In plant physiology, the movement of water and dissolved materials through the body of the plant

Transpiration. The evaporation of moisture from the surface of a plant,
especially via the stomata of leaves; it exerts a suction which draws water up from the roots and through the intervening xylem cells

Understorey. A layer of vegetation beneath the main canopy of woodland or forest or plants forming this

Understorey tree species. Tree species not having potential to attain a size at which they can contribute to the closed high canopy of a woodland

Vascular wilt. A type of plant disease in which water-conducting cells
become dysfunctional

Vessels. Water-conducting cells in plants, usually wide and long for hydraulic efficiency; generally not present in coniferous trees

Veteran tree. A loosely defined term for an old specimen that is of interest biologically, culturally or aesthetically because of its age, size or condition and which has usually lived longer than the typical upper age range for the species concerned

Vigour. The expression of carbohydrate expenditure to growth (in trees).

Vitality. A measure of physiological condition expressed through the health and growth of foliage, shoots and adaptive woody tissues.

White-rot. A range of kinds of wood decay in which lignin, usually together with cellulose and other wood constituents, is degraded

Wind exposure. The degree to which a tree or other object is exposed to wind, both in terms of duration and velocity

Wind pressure. The force exerted by a wind on a particular object

Windthrow. The blowing over of a tree at its roots

Wound dressing. A general term for sealants and other materials used to cover wounds in the hope of protecting them against desiccation and infection; only of proven value against fresh wound parasites

Woundwood. Wood with atypical anatomical features, formed in the vicinity of a wound

We trust that this report provides all the necessary information although if further advice is needed please do not hesitate to contact us.

Dated.....24/03/2015

Acorn ARBORICULTURE

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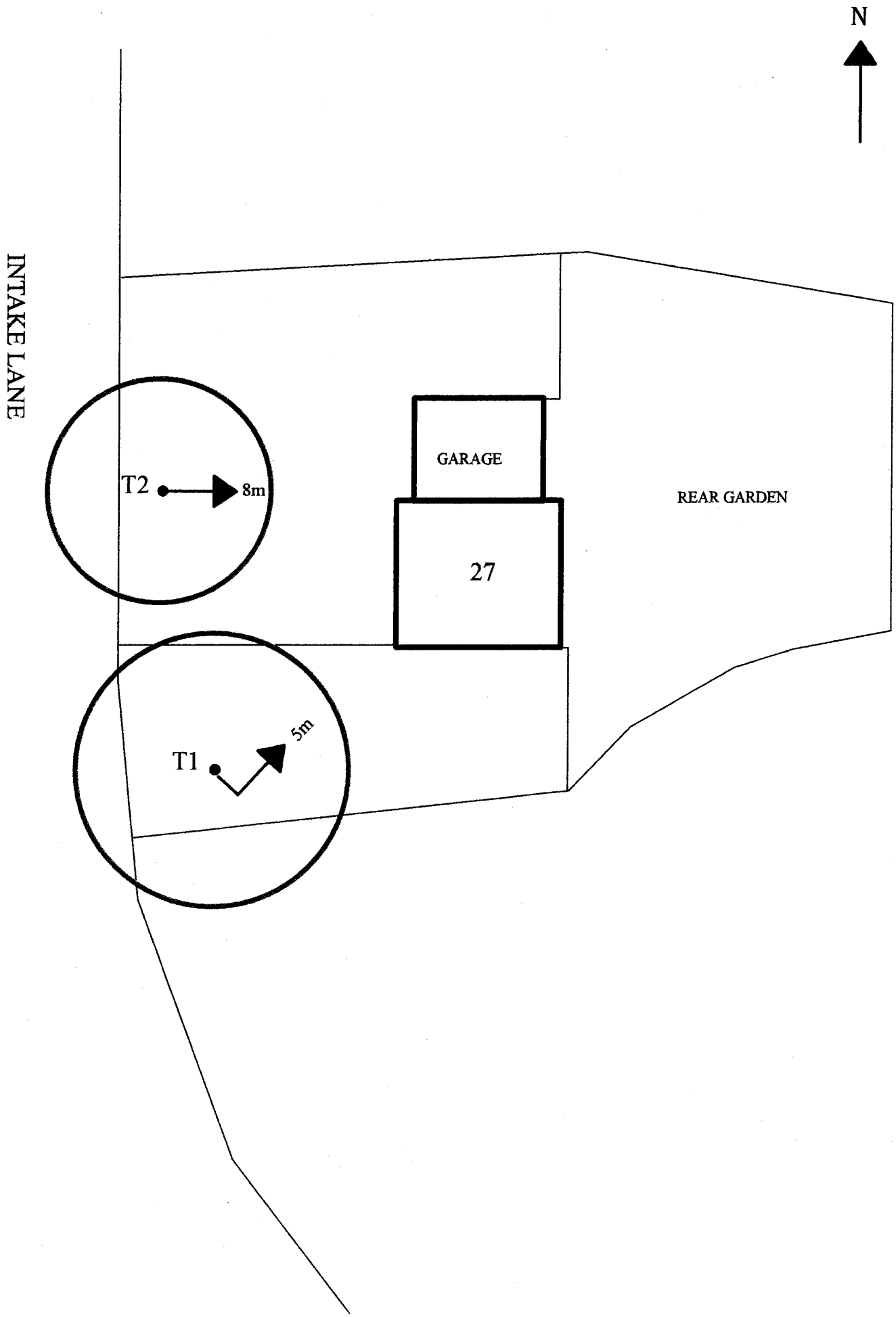
N
INTAKE LANE
T2
8m
GARAGE
REAR GARDEN
27
T1
5m