Photo 13.

Photo 14.

Photo 15.

Photo 16.

Photo 17.

Photo 18.

Photo 19.

Photo 20.

Photo 21.

Photo 22.

Photo 23.

Photo 24.

Photo 25.

Photo 26.

Photo 27.

Photo 28.

Photo 29.

Photo 30.

Photo 31.

Photo 32.

Photo 33.

12. Signature

This report represents a true and factual account of the trees and potential impact of development along with proposed protection measures at

Maitland Park
Maitland Park Road
London
NW3 2HB

Signed

.....

Ivan Button N.C.H. (Arb), FDSc (Arb), BSc (Hons), P.G.C.E., M. Arbor. A.

on behalf of

Crown Consultants Ltd

Dated

1st April 2014

CROWN Consultants
Tree consultants throughout England and Wales

Appendix 1: BS 5837: 2012 – Guidance Notes

This Standard prescribes the principles to be applied to achieve a satisfactory juxtaposition of trees and structures. It sets out to assist those concerned with trees in relation to design, demolition and construction to form balanced judgements.

It acknowledges the positive contribution trees may offer to a site, as well as the negative aspects of retaining inappropriate trees. It addresses the negative impacts that construction activity may have upon trees and offers mitigation strategies to minimise these impacts.

The Standard suggests a three stage approach to ensure best practice is followed when developing close to trees:

A1.1 Stage 1: Survey of Existing Trees

This identifies the existing trees on and adjacent to the site. Data is recorded for each tree and is presented in a Tree Data Schedule. Each tree is allocated a ***Retention Category*** according to its size, amenity value, condition and safe useful life expectancy. The categories are allocated independently of development proposals. Our interpretation of the Retention Categories is explained below:

A1.1.1 Retention Categories

A Category: Trees of high quality and amenity value. Usually, mature trees with a significant life expectancy which would enhance any development. Retention of these trees is strongly encouraged.

B Category: Trees of moderate quality and amenity value. Usually these are maturing trees or younger trees with exceptional form. Retention of these trees is desirable though the removal of occasional specimens may be acceptable.

C Category: Trees of low quality or small specimens with a relatively low amenity value. These trees are not considered to be a material planning constraint and their removal will generally be seen as acceptable in order to facilitate development.

U Category: Trees of such low quality that their removal is recommended regardless of development proposals.

A1.1.2 Occasionally trees are borderline and do not fall neatly into one of the categories A, B or C. In such cases we apply a superscript (**+/-**) such that:

C^{+} Indicates borderline C/B, though Category C is deemed to be most appropriate.

B^{-} Indicates borderline C/B, though Category B is deemed to be most appropriate.

A1.1.3 The British Standard suggests that each of the A, B and C categories may be further subdivided (A1, A2, A3, B1, B2, B3 etc) such that subcategory 1 denotes mainly arboricultural values, subcategory 2 denotes mainly landscape values and subcategory 3 denotes mainly cultural values (including conservation). Multiple subcategories may be used.

Our experience suggests that these subdivisions lack clarity and can be confusing. Within this report subcategories are **not** denoted. Where appropriate, the use of phrases such as '*Part of a formal group*', or '*Has a high ecological value*', or '*Offers good screening to the site*' are incorporated into the observation section of the Tree Data Schedule. We believe this conveys all relevant landscape and cultural information without any confusion.

A1.1.4 **Tree Constraints Plan (TCP).** This indicates the position, crown spread, Retention Category and Root Protection Area of each tree. It is used to inform where development may proceed without causing damage to trees.

A1.1.5 **Root Protection Area (RPA).** This is the area around each tree likely to contain the majority of roots. It should ideally remain undisturbed to avoid a detrimental impact on tree health. For single stemmed trees It is calculated according to the formula "radius of RPA" = "12 x stem diameter". For multiple-stemmed trees a more complex formula is used which may occasionally produce an RPA which seems inappropriately large relative to the trees canopy. This shape can then be modified to take into account site factors which influence rooting activity, e.g. foundations, soil type or impermeable surfaces. Where development works are proposed within the RPA they should be undertaken in a sympathetic manner to minimise root disturbance.

A1.1.5 **Shade Constraints.** The previous Standard (BS 5837 2005) suggested that shade constraints should be indicated on the TCP. This are denoted as a circle-segment drawn northwest to due east with a radius equal to the height of the tree. These do not represent the actual shade pattern which varies through the seasons. Rather, they indicate the area most shaded by the tree throughout the course of the year. Ideally habitable room windows should be located outside of these shade constraints. Where we consider it appropriate, we will include shade constraints information on our Impact Assessment Plan or Proposed Layout Plan.

A1.2 Stage 2: Arboricultural Impact Assessment

After the initial survey and the production of the Tree Constraints Plan, arborists and designers are encouraged to work together to establish a design proposal with minimal impact on the high quality trees. An assessment should be made of all possible impacts including the impact that the trees may have upon the proposal. The arborist may recommend mitigation strategies to minimise these impacts and help achieve a more harmonious juxtaposition between buildings and trees.

A1.3 Stage 3: Arboricultural Method Statement

This type of report specifies the measures necessary to protect trees against damage from construction activity. The Method Statement should be written in a manner that it may be conditioned and enforced by the local authority upon granting of planning permission. The site manager should be familiar with all aspects of the Method Statement and should ensure that all persons working on the site are aware of those aspects which appertain to their work. This includes service installation engineers and operators of plant machinery.

Appendix 2: Explanation of Tree Data & Glossary

This section explains the terms used in the **Tree Data Schedule** (see Section 3 and Appendix 6).

A4.1 General Observations

A4.1.1	**Numbering System:**	Each item of vegetation has its own unique number prefixed by a letter such that T1=Tree 1, G2=Group 2, H3=Hedge 3 and W4=Woodland 4, S5=Shrub 5.
A4.1.2	**Age Categories:**	
	Young	Usually less than 10 years old.
	Semi-Mature	Significant future growth to be expected, both in height and crown spread (typically below 30% of life expectancy).
	Early-Mature	Full height almost attained. Significant growth may be expected in terms of crown spread (typically 30-60% of life expectancy).
	Mature	Full height attained. Crown spread will increase but growth increments will be slight (typically 60% or more of life expectancy).
	Veteran	A level of maturity whereby significant management may be required in order to keep the tree in a safe condition.
	Over Mature	As for veteran except management is not considered worthwhile.
A4.1.3	**Species:**	Common names and Latin names are given.
A4.1.4	**Height:**	Measured from ground level to the top of the crown.
A4.1.5	**Stem Diameter:**	Taken at 1.5m above ground level where possible. On multi-stemmed trees this measurement may be taken at ground level, though usually an indication of the number of stems and average diameter is given, e.g. 3 x 30cm.
A4.1.6	**Crown Height:**	Measured from ground level to the height at which the main crown begins. Where the crown is unbalanced it is measured on the side deemed to be most relevant. This is usually the side facing the area of anticipated development.
A4.1.7	**Tree Diagram:**	This scaled drawing is computer generated based on measurements taken for stem diameter, crown height and spread, and overall height. It is designed to help the reader rapidly assess the data. It is not an accurate representation of the form of the tree.
A4.1.8	**Crown Spread:**	Measured N, E, S & W, taken from the centre of the stem and usually rounded up to the nearest metre.
A4.1.9	**Observations:**	If a tree's position is considered to be relevant it will be commented upon (e.g. overhanging a children's play area). Tree form and pruning history are also recorded along with an account of any significant defects. Defects and descriptive terms are dealt with in more detail at the end of this section.
A4.1.10	**Recommendations:**	Usually based on any defects observed and intended to ensure that the tree is in an acceptable condition.
A4.1.11	**Priority Scale:**	Depending upon the threat posed by the tree, and the likelihood of failure, recommendations should be carried out according to the following priority scale:
	Urgent	To be carried out as soon as possible.
	Very High	To be carried out within 1 month.
	High	To be carried out within 3 months.
	Moderate	To be carried out within 1 year.
	Low	To be carried out within 3 years.
A4.1.12	**Inspection Frequency:**	An interval of 6 months, 1 year, 1.5 years or 3 years is allocated before the next inspection is due. Wherever practical, consideration should be given to seasonal changes so that deciduous trees are not always surveyed in winter when they have no leaves, or in summer when leaves may obscure branches within the upper crown.
A4.1.13	**Vigour:**	An indication of growth rate and the tree's ability to cope with stresses:
	High	Having above average vigour.
	Moderate	Having average vigour.
	Low	Having below average vigour.
	Very Low	Tree is struggling to survive and may be dying.
A4.1.14	**Physiological Condition:**	
	Good	Healthy and with no symptoms of significant disease.
	Fair	Disease present or vigour is impaired.
	Poor	Significant disease present or vigour is extremely low.
	Very Poor	Tree is dying.
A4.1.15	**Structural Condition:**	
	Good	Having no significant structural defects.
	Fair	Some defects observed though no high priority works are required.
	Poor	Significant defects found. Tree requires monitoring or remedial works.
	Very Poor	Major defects which will usually require significant remedial works or tree removal.
A4.1.16	**Amenity Value:**	
	Very High	Exceptional specimen, observable by a large number of people.
	High	Attractive specimen, observable by a significant number of people.
	Moderate	One of the above factors is not applicable.
	Low	Unattractive specimen or largely hidden from view.
A4.1.17	**Life Expectancy:**	The estimated number of years before the tree may require removal. Classified as (<10), (10 – 20), (20 – 40), or (40+).
A4.1.18	**Retention Category:**	These are explained in detail in Appendix 1.

A4.2 Evaluation of Defects

A4.2.1 Cavities, wounds, deadwood etc are all evaluated as follows:

Major	Such that structural integrity is, or will become, compromised and the tree is, or will inevitably become, hazardous.
Significant	A defect that may over time become a major defect, though not necessarily so. This will depend on the vigour of the tree and its ability to deal with decay etc.
Minor	A defect that is not likely to compromise the tree's structural integrity.

General Glossary

Adaptive growth	In tree biomechanics, the process whereby wood formation is influenced both in quantity and quality by the action of gravitational forces and mechanical stresses on the cambial zone.
Aerobic	Conditions in which oxygen is freely available, or to biomechanical processes that depend on the presence of oxygen.
Anaerobic	A condition marked by the absence of oxygen; Generally such areas are unsuitable for normal life and growth of plant tissues. These sites tend to be populated by bacteria capable of surviving low oxygen conditions often associated with Slime Flux.
Arboriculture	The culture and management of trees as groups and individuals primarily for amenity and other non-forestry purposes.
Arborist	A person possessing the technical competence through experience and related training to provide management of trees or other woody plants in a landscape setting. Generally involved with the development or management of trees for visual amenity or land management rather than the growth of trees for product or profit.
Barrier zone	A layer within an annual increment of wood which contains abnormal xylem cells, laid down by the cambium in response to wounding or other trauma.
Body language	In trees, the outward display of growth responses and or deformation in response to mechanical stress.
Bole	Or Trunk, the main stem of a tree below its first major branch.
Bracket	A type of fruiting body produced by various fungal species, plate like to hoof like in shape and often a one sided attachment to the wood or bark.
Branch bark ridge	A ridged area located at the union of a branch to a trunk or stem.
Branch Collar	Trunk tissue that forms around the base of a branch between the main stem and the branch, or between a main branch and a lateral branch. As a branch decreases in vigour or begins to die, the collar usually becomes more pronounced and completely encircles the branch.
Brown Rot	Form of decay where cellulose is degraded, while lignin is only modified.
Buttress Root	Roots that emerge from the base of the tree stem, normally large and well developed that rapidly reduce in diameter to create the Root Plate this offers structural support for the tree. Buttress roots divide rapidly forming the connection between the stem and the transport roots.
Cabling Bracing	Installing cables within the crown of a tree to prevent collapse.
Callus	Undifferentiated cells often formed at the edges of recent injuries. This tissue quickly becomes differentiated, forming cells of the type characteristic of that position on the tree (e.g. forming wood, bark, roots, etc.) see wound response tissue.
Cambium	A thin layer of actively growing and dividing cells, located between the xylem (sapwood) and bark of a plant; the part responsible for radial growth of a tree stem or branch.
Canopy	The topmost layer of twigs and foliage in a woodland, tree or group of trees.
Canker	A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by woundwood development on the periphery. This may be annual or perennial.
Cavity	An open and exposed area of wood, where the bark is missing and internal wood has been decayed and dissolved.
Chlorotic	Also Chlorosis. A condition of the plant marked by yellowing of normally green foliage, often indicating nutrient deficiency or plant dysfunction.
Clinometer	Devices that measures vertical angles, and provides direct height measurements of objects by triangulation.
Co-dominant stems/trunk	Are forked branches or trunks of nearly the same size in diameter and lacking a normal branch union.
Compacted soils	Soils in which the air-space (oxygen space) has been reduced or eliminated, reducing water infiltration and percolation, reducing root presence and inhibiting new root development.
Compartmentalisation	The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.
Compression Failure	Localized buckling of fibres and other longitudinal elements produced by compression of wood along the grain; compression failures sometimes develop in standing trees.
Compression Strength	The ability of a material or structure to resist failure when subjected to compressive loading; measurable in trees using special drilling devices
Compression Wood	Abnormal wood formed on the lower side of branches and curved stems, with physical properties different from normal wood.
Conservation Area	In Great Britain, designated areas of architectural or historical interest, in which there are special procedures for planning applications. Additionally tree works cannot generally be undertaken without prior notification (Currently 6 weeks) to the relevant local planning authority. See also Tree Preservation Orders.
Core Sample	A sample of wood extracted from a trunk or branch, using an increment borer tool. The resulting core can be analysed for characteristics of growth, wood strength, structure, decay, and for species identification.
Crotch	The union of two or more branches; the auxiliary zone between branches.
Crown	The upper canopy of a tree, including upper trunk, scaffold branches, secondary branches, stems and leaves.
Crown lifting / raising	Crown Lift The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
Crown reduction	The reduction of a tree's height or spread while preserving its natural shape.
Crown thinning	The removal of some of the density of a tree's crown, usually 5-25% allowing more light through its canopy and reducing wind resistance.
Deadwood (noun)	Deadwood is often present within the crown or on the stems of trees. It may be an indication of ill health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).
Deadwood (verb)	The removal of dead branches from a tree's canopy, usually of a specified size (in diameter).
Decay	Progressive deterioration of organic tissues, usually caused by fungal or bacterial organisms, resulting in loss of cell structure, strength, and function. In wood, the loss of structural strength.
Decay Detection	The assessment of decay within a tree has been traditionally difficult, but recent advances have made it possible to achieve accurate representations of the internal section of a tree in both 2D and 3D, removing doubt over the condition of the tree and allowing accurate management decisions.
Decurrent	In trees a, system of branching in which the crown is borne on a number of major widely spreading limbs of similar size. In fungi relates to toadstools whose gills run down the stem and leaves and other plant organs, which extend down the stem.
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.

Defoliation	**The losing of plants foliage.**
Dieback	**Progressive death of buds, twigs and branch tissues, on individual limbs resulting in Deadwood, or throughout the canopy, extreme cases can result in Stag Heading.**
Dripline	**A projected line on the ground that corresponds to the spread of branches in the canopy; the farthest spread of branches.**
Epicormic shoots	**Fast growing, weakly attached shoots/branches that often grow as a response to stress factors upon a tree or branch removal.**
Excurrent	**In trees, a system of branching that a single leader remains dominant, through the control of lateral branches.**
Failure	**In connection with tree hazards, a partial or total fracture within the wood tissue or loss of cohesion between roots and soil. (In total failure affected parts will snap or tear away completely, Partial failure there is a crack or deformation, which results in an altered distribution of mechanical stress.**
Feeder Roots	**Fine fibrous Water and nutrient absorbing roots located in the outer root system.**
Flush-Cut	**In trees and shrubs, a pruning cut close to the parent stem, which removes the branch bark ridge.**
Foliage	**The live leaves or needles of the tree; the plant part primarily responsible for photosynthesis.**
Formative pruning	**The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown.**
Gall	**An abnormal, disorganized growth of plant tissues, caused by parasitic or infectious organisms such as insects, fungi, bacteria, or viruses.**
Girdling	**In woody plants, any form of damage that destroys the bark and / or the Cambium all the way around the stem, branch or root, normally resulting in death of the damaged section.**
Girdling Root	**In woody plants, a root that grows across the buttress, or across other roots, eventually causing constriction of the radial growth.**
Growth Increment	**The incremental growth added as new annual ring develops each season over existing wood. This is seen as (growth) rings in cross-sections of wood.**
Hazard beam	**An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).**
Heartwood	**Inner non functioning tissues that provide structural support to trunk.**
Heave	**In relation to shrinkable clay soils, expansion due to rewetting of a volume of soil previously subjected to the removal or water by plant / trees following felling or root severance. Also in relation to root growth, the lifting of pavements and other structures by radial expansion. Also in relation to tree stability, the lifting of one side of a wind rocked root plate.**
Herbicide	**A chemical compound that causes the death of a plant.**
Included Bark	**Bark that becomes embedded in a crotch between branch and trunk or between co-dominant stems, usually found in narrow or tight crotches, and causes a weak structure.**
Increment Borer	**A tool that cuts and extracts a narrow cylinder of wood from a tree for analysis of the wood tissue and growth increments.**
Leader	**The primary terminal shoot or trunk of a tree.**
Limb	**A large lateral branch growing from the main trunk or from another larger branch.**
Lion Tailing	**Often the result of poor pruning practices; the main leader or branches are largely devoid of side branches, growth is restricted to the end of branches and is likely to suffer damage through end loading.**
Lopping	**In trees, a general term that related to the removal of branches from a tree.**
Monitoring	**Due to the relative life span of trees in relation to our own, long-term monitoring provides a valuable insight to the health of trees, identifying decline and or stabilisation and or improvement.**
Mulch	**A material laid over the root system of a tree to help conserve moisture within the soil. Additionally it may help control the development of weeds close to the tree.**
Mycelium	**A mass of growing filaments (hyphae) formed by fungi.**
Mycorrhizae	**The symbiotic relationship between roots and certain beneficial fungi. Mycorrhizae are the combined root / fungal growth.**
Natural Pruning	**The shedding of a branch or twig that has died back naturally and has become decayed at or near its base.**
Necrosis	**The failure and subsequent death of a branch, leader or tree.**
Negligence	**A failure to take reasonable action to deal with a hazard to prevent damage to property or person.**
Nutrient	**Substances that are absorbed by living organisms for the maintenance of internal processes.**
Occluding tissue	**The general tern of wood, cambium and bark that develop around the site of a wound on a woody plant**
Pathogen	**A microorganism that causes diseases within another organism.**
Phloem	**The principle conductive tissue that the products of Photosynthesis are transported around the plant**
Photosynthesis	**The process were light energy is used to create energy (Carbohydrate) for use within the plant.**
Pollard	**A term for a pollarded tree.**
Pollard head	**The swollen section of branch / stem that forms behind the pollarding cut.**
Pollarding	**The complete or partial removal of the crown of a young tree so as to encourage the development of numerous branches either for amenity or historically as fodder, repeated management is required cyclically to maintain the feature**
Prune or Pruning	**Selective removal of woody plant parts of any size, using saws, Loppers, Secateurs, or other pruning tools.**
Reaction Wood	**Wood with distinctive anatomical characteristics, formed in parts of leaning or crooked stems and in branches to provide additional strength / support. In hardwoods, tension wood usually forms. In conifers, compression wood is usually found.**
Reaction Zone	**A zone normally darker than surrounding wood that denoted the boundary often a defensive one between functional sapwood and dysfunctional or decaying wood.**
Re-grading	**The raising or lowering of a soil profile from its original grade.**
Rejuvenation pruning	**Where historically or environmentally important trees are to be retained, their life spans can be significantly extended through the adoption of particular pruning regimes.**
Rejuvenation root treatment	**Management of the root zone can have a significant positive effect upon the health of trees. Physical, mechanical and biological approaches are available and can be prescribed in accordance within the constraints of individual sites.**
Remedial pruning	**The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown.**
Resistograph	**Invasive decay detection technique whereby the resistance offered by the timber to a spinning probe is measured and plotted.**
Rib	**In tree body language, a long narrow, axial protuberance which often over lays a crack.**
Ring Barking	**Artificial Girdling of the stem, to result in the death of a tree. May be used in habitat creation were the retention of dead standing trees is required.**
Rod Bracing / Bolting	**Traditionally, this has relied upon the Installation of steel rods or bolts through the stems or limbs, to reduce twisting or splitting of the wood. The installation of such features does require legal interpretation.**

Root Barriers	**Both Buildings and services can benefit from the installation of root barriers to protect a soil volume from the ingress of roots.**
Root Collar	**The basal area of the tree; transition zone from trunk to root. Also sometimes called trunk flare.**
Root Plate	**The primary support area for the tree; an area of the root system close to the base that structurally anchors the tree to the soil.**
Root Rot	**Either a general term for decay within the wood of the lower stem / buttress roots, or a disease in which the fine roots are killed.**
Root System	**The portion of the tree containing the root organs, including buttress roots, transport roots, and fine absorbing roots; all underground parts of the tree.**
Root Zone	**The area and volume of soil around the tree in which roots are expected. May extend to three or more times the branch spread of the tree, or several times the height of the tree.**
Sail Area	**That area or the tree subjected to wind load.**
Sanitation	**In plant disease control, the removal of material that could a source of infection by a pathogen. Removal of diseased plant parts, such as fallen leaves and twigs, and pruning of dead and diseased branches. Diseased parts should be burned or buried under soil or active compost.**
Sapwood	**Xylem wood tissue, usually light in colour, representing the outer growth rings of the wood. Usually living, reactive wood tissue, in a healthy tree. See heartwood**
Scaffold limbs / scaffold Branches	**The branches that from the main network framework of the crown of a tree.**
Senescent	**A decline in growth and vigour due to age or stress factors.**
Shrub	**A woody plat that branches at or close to the ground level and so does not have a single stem.**
Slime Flux	**Relating to a toxic condition from the spreading of bacteria or their products from a source of infection; characterized by malodorous gases, or salt deposits upon the bark. If these products enter the sap stream, localised vessel necrosis can result, usually associated with anaerobic conditions.**
Soft Rot	**A kind of wood decay, were a fungi degrades cellulose within the cell wall, without causing overall degradation.**
Soil Compaction	**The compression of soil, causing a reduction of pore space and an increase in the density of the soil. Air is squeezed out and nutrients become locked. Tree roots cannot grow in compacted soil.**
Soil Profile	**The characteristics of a soil as regards to relative depth; the changes in soil texture and composition that occur with depth.**
Soil Texture	**The classification of the constituent particles of soil; includes sand, silt and clay particles. Directly related to soil porosity, permeability, and aeration.**
Sonic Decay Detection	**Non invasive method whereby sound waves are passed through the tree and the speed is measured. Slow speeds indicate decay and a tomography picture representing the inner stem is produced.**
Stag Heading	**In a tree, a state of dieback were dead branches protrude beyond the current living crown.**
Stress	**In plant physiology, conditions were one or more physiological functions Are not working within normal parameters.**
Stump Grinding	**The removal of a tree stump using a specialist grinding machine.**
Subsidence	**In relation to vegetation, the removal of water by plant growth resulting in localised shrinkage in the soil volume.**
Sucker	**Same as sprout.**
Suppressed	**Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.**
Systemic	**Affecting the whole plant or organism. A systemic compound is carried throughout the entire plant to all parts through the vascular system.**
Target	**Any person or object within reach of a falling tree or part of a tree that may be injured or damaged.**
Target Pruning	**The pruning of a branch were the wound affects only branch material, often result in a target shaped wound.**
Tension Wood	**Reaction wood typically formed on the upper side of limbs or curved stems; characterized by lack of cell wall lignifications (higher ratios of cellulose to lignin).**
Tight Union / Tight Crotch	**Also, narrow crotch. A crotch with a narrow angle between branches, often having included bark.**
Tomography	**The comparison of sound or stress waves through the tree allows the creation of a 2D or 3D representation of the internal structure of a stem or branch section and highlights areas of damage. Virtually non-injurious.**
Topography	**The configuration of surface features, including the vertical and horizontal relationships of the ground and other features.**
Topping	**Cutting large limbs back severely, without regard to form or habit of the tree. Cuts are usually made between lateral branch nodes. This practice is extremely injurious to trees, and promotes decay and structural weakness within the crown.**
Tree	**A woody plant that typically has a single stem, at maturity has a height of a least 4 metres and a stem diameter at breast height of at least 75mm.**
Tree Preservation Order	**In Great Britain, an order made by the local planning authority, were consent must be gained before undertaking all but exempt works to a tree.**
Trunk Flare	**The basal area of the trunk that flares or widens, and merges with the main roots. See root collar**
Veteran Tree	**Veteran trees are often found in large parks or estates and commonly affected by extensive decay or have been subject to extensive works. These trees are retained for historical importance and often pose greater risk than normal, which is generally justified. They need careful management and often propping or bracing to support them, some require fencing to limit access.**
Vigour	**Active, healthy growth of plants: ability to respond to stress factors.**
Visual Tree Assessment (VTA)	**An assessment of the mechanical condition of trees based upon their 'body language'. Trees are dynamic and respond to faults / decay / environmental factors in various ways, these responses can be indicative of structural integrity.**
Wetwood	**An infection caused by bacteria living inside the plant tissues. The bacteria ferment the plant fluids, resulting in death of nearby cells, and often causing exudations of fluid from the bark, often referred to as a Slime Flux.**
White Rot	**A kind if wood decay were a fungi attacks the lignin within the wood matrix**
Wind loading	**Forces placed upon tree canopy, branches, trunk and roots of a tree under windy conditions.**
Wind Throw	**The failure of a tree due to wind loading.**
Witches Broom	**A deformed or unusual growth of twigs from adventitious buds, caused by insects, disease, or dieback of twigs and buds.**
Wood	**Secondary Xylem; the main structural support and water conducting tissue of trees and shrubs.**
Wound Response Tissue	**Also Occluding Tissue, Wound Wood or Callus. Differentiated wood tissue that grows around the margins of a wound or injury.**
Wound Wood	**Wood with atypical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound**
Xylem	**Plant tissues with special function of translocation of water and dissolved nutrients.**

Appendix 3: Survey Methodology

A2.1 Ground level visual surveys are carried out using the *Visual Tree Assessment* technique described by Mattheck and Broeler (1994) and endorsed by the Arboricultural Association (LANTRA Professional Tree Inspection course, 2007).

A2.2 Structural condition is assessed by inspecting the stem and scaffold branches from all angles looking for weak branch junctions or symptoms of decay. Particular attention is paid to the stem-base. Cavities are explored using a metal probe in order to assess the extent of any decay. If this is not possible further inspection is recommended in the form of a climbed inspection or using specialist decay detection equipment.

A2.3 The physiological condition is assessed by inspecting the stem, branches and foliage for symptoms of disease. The overall vigour of the tree is also taken into account.

A2.4 Where significant defects are observed, recommendations are made according to a scale of priority in order to reduce the likelihood of structural failure. The position of the tree and its potential targets are taken into account.

A2.5 Measurements are obtained using a diameter tape, clinometer, distometer and loggers tape. Where this is not practical measurements are estimated.

A2.6 Some trees are surveyed as groups, though this is usually avoided close to areas likely to be developed.

A2.7 Finally, a *Retention Category* is allocated as described in Appendix 1.1.1.

Appendix 4: Author's Qualifications

Qualifications & Experience of Ivan Button N.C.H. (Arb), FDSc (Arb), BSc (Hons), P.G.C.E., M. Arbor. A.

Construction

Between 1983 and 1995 Ivan worked primarily within the construction industry and received training in a broad range of practical building skills and general construction principles. During this time he obtained a BSc (Hons) at Leeds University followed by a P.G.C.E at The University of Wales.

Arboriculture

He obtained a NCH (Arboriculture) at the University of Lincoln and became a member of the Arboricultural Association. He then worked for an Arboricultural Consultancy for one year before establishing a tree surgery and landscaping business in 1998. In 2005 Ivan commenced full time employment with a leading Arboricultural Association approved consultancy and soon adopted a senior role responsible for five consultants.

He obtained a FDSc in arboriculture at the University of Lancashire, which he passed with distinction and is now a Director and Principal Consultant of Crown Consultants Ltd. He is accredited as a LANTRA *Professional Tree Inspector*. A qualification produced in association with the Arboricultural Association and generally recognised as appropriate for all levels of tree inspection.

He is a member of the Consulting Arborist Society and is listed within their areas of professional expertise for QTRA and as an expert witness.

Ivan is a professional member of the Arboricultural Association and the International Society of Arboriculture.

He is a licensed Quantified Tree Risk Assessment user.

Ivan has undertaken professional expert witness training and has been registered as a Sweet and Maxwell Checked Expert Witness since 2008.

Throughout 2009 acted as the principal Tree Officer for Barnsley Metropolitan Borough Council.

Ivan has produced several hundred Arboricultural Reports for the purposes of Development, Safety, Management, Mortgage, Subsidence, Mitigation and Litigation.

Appendix 5: Further Information

Building Near Trees – General

National Joint Utilities Group publication # 10 (1995), *Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees. Downloadable at www.njug.demon.co.uk/pdf/NJUG%20Publication10.pdf*

NHBC Standards Chapter 4.2., *Trees and Buildings.*

Horticulture LINK project 212. (*University of Cambridge,* 2004), *Controlling Water Use of Trees to Alleviate Subsidence Risk.*

Tree Planting and aftercare

See www.trees.org.uk/leaflets.php# for downloadable leaflets on selecting a garden tree, planting, aftercare and veteran tree management.

British Standards

BS 5837: 2012. Trees in Relation to Design, Demolition and Construction – Recommendations.
Bs 3998: 2010. Recommendations for Tree Work.
BS 3936: 1992. Nursery Stock. Part 1: Specification for Trees and Shrubs.
BS 3936: 1992. Nursery Stock. Part 10: Specification for Groundcover Plants.
BS 4043: 1989. Transplanting Root-balled Trees.
BS 8004: 1986. Foundations.
BS 8103: 1995. Structural design of Low-Rise Buildings.
BS 8206: 1992. Lighting for Buildings.
BS 3882: 2007. Topsoil.
BS 4428: 1989. General Landscaping Operations (excluding hard surfaces).

Permission to do Works to Protected Trees / Tree Law

Forestry Commission (Edinburgh, 2003), *Tree Felling – Getting Permission.* Country Services Division - Forestry Commission. Downloadable at www.forestry.gov.uk/website/pdf.nsf/pdf/wgsfell.pdf/$FILE/wgsfell.pdf

Transport and the Regions (Department of the Environment, 2000), *Tree Preservation Orders, A Guide to the Law and Good Practice.* Downloadable at www.communities.gov.uk/publications/planningandbuilding/tposguide

C. Mynors, *The Law of Trees, Forests and Hedgerows* (Sweet and Maxwell, London, 2002)

Communities and Local Government website with numerous downloadable documents, from: http://www.communities.gov.uk/planningandbuilding/planning/treeshighhedges/

Lighting Levels

P.J. Littlefair, *B.R.E. 209: Site layout planning for daylight and sunlight A guide to good practice.* B.R.E. Bookshop, London.

British Standards Institution. Code of practice for day lighting. *British Standard* BS 8206: Part 2 (1992).

Chartered Institution of Building Services Engineers. *Applications manual: Window Design* (London, 1987).

NBA Tectonics. A study of passive solar housing estate layout. *ETSU Report* S-1126. Harwell, Energy Technology Support Unit (1988).

I.P. Duncan; D. Hawkes, Passive solar design in non-domestic buildings. *ETSU Report* S-1110. Harwell, Energy Technology.

P. J. Littlefair, Measuring Daylight, *BRE Information Paper 23/93 f3.50.* (Advises on measuring daylight under the real sky or an artificial sky, allowing for the changing nature of sky light).

High Hedges

Communities and Local Government website with numerous downloadable documents, from: http://www.communities.gov.uk/planningandbuilding/planning/treeshighhedges/

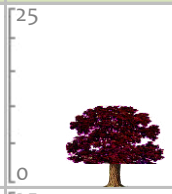
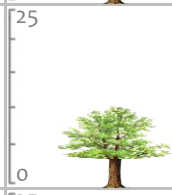
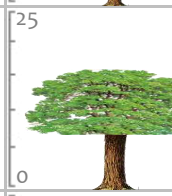
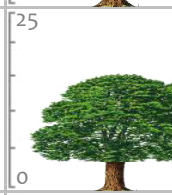
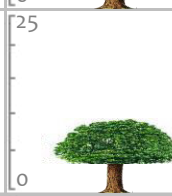
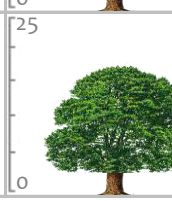
Tree Specific Websites

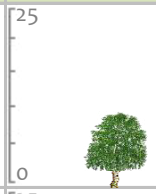
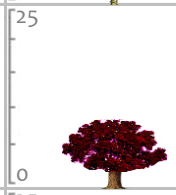
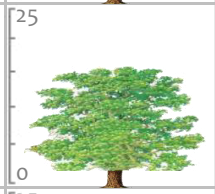
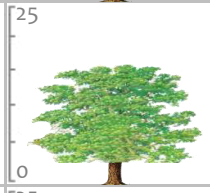
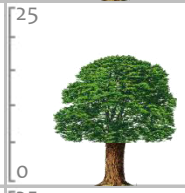
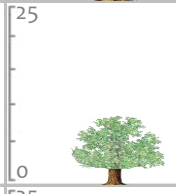
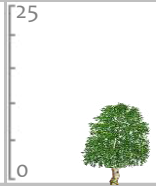
www.crowntrees.co.uk	Crown Consultants site containing useful information
www.trees.org.uk	Arboricultural Association
www.rfs.co.uk	Royal Forestry Society of England, Wales and N. Ireland
www.treehelp.Info	The Tree Advice Trust
www.woodland-trust.org.uk	The Woodland Trust
www.treecouncil.org.uk	The Tree Council

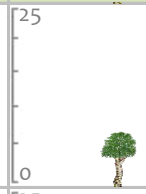
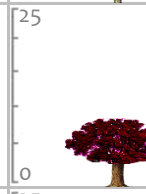
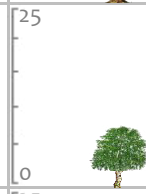
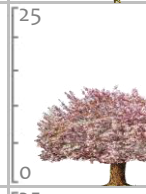
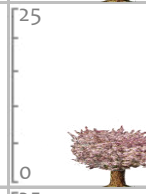
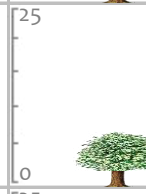
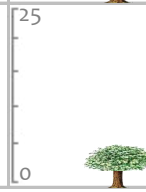
Appendix 6: Tree Data Schedule and Site Plan(s)

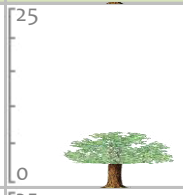
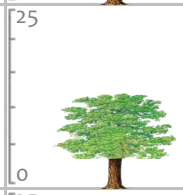
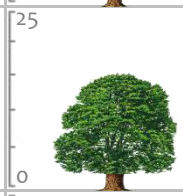
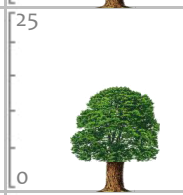
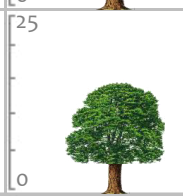
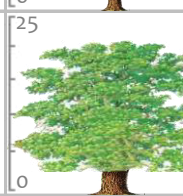
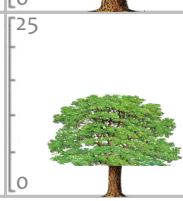
The Tree Data Schedule and all plans accompanying this report follow this page. They are also provided as separate documents for ease of printing and referring between when viewing on a screen.

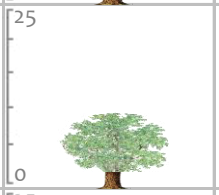
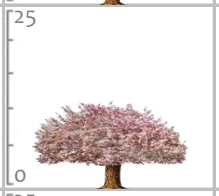
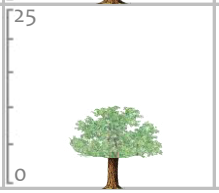
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W / N / E / S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
						9 0 9		Priority / Inspect Freq (yrs)		
T1	Mature **Beech** Fagus sylvatica.	14	4.5	73	W 6, N 5, E 6, S 6		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: Significant cavity at 1m.**	Decay detection required. Moderate / 1.5	Moderate Good Fair	Very High 40+ A
T2	Semi-Mature **Lime** Tilia sp.	12	2.5	27	W 4, N 4, E 4, S 4		Form: Single stemmed and vertical with a well-formed crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a / 3	High Good Good	Moderate 40+ B
T3	Semi-Mature **Purple Norway Maple** Acer platanoides.	13	3	30	W 4, N 3, E 2, S 3		Form: Single stemmed and vertical with a slightly unbalanced crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a / 3	Moderate Good Good	Moderate 40+ B
T4	Semi-Mature **Lime** Tilia sp.	10	3	26	W 3, N 3, E 4, S 3		Form: Twin-stemmed at 2.5m with a balanced crown. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Curved stem.	No action required. n/a / 3	High Good Good	Low 40+ C +
T5	Semi-Mature **Lime** Tilia sp.	10	4	32	W 4, N 3, E 3, S 3		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a / 3	Moderate Good Good	Moderate 40+ B
T6	Early-Mature **Lime** Tilia sp.	15	3	51	W 5, N 7, E 6, S 6		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a / 3	High Good Good	High 40+ A
T7	Semi-Mature **Silver Maple** Acer saccharinum.	14	2.5	42	W 4, N 7, E 7, S 6		Form: Twin-stemmed at 2.5m with a slightly unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a / 3	Moderate Good Good	High 40+ A

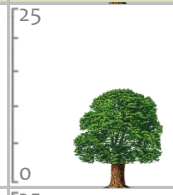
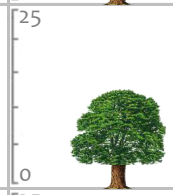
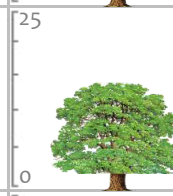
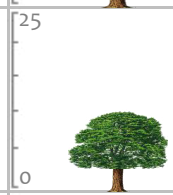
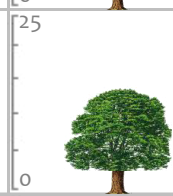
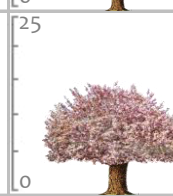
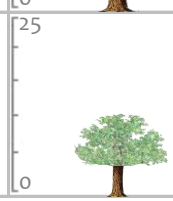
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T8	Semi-Mature **Purple Norway Maple** Acer platanoides.	10	3	32	W 5, N 3, E 4, S 3		Form: Twin-stemmed at 2.5m with a compact crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No evidence of significant pruning.**	No action required. n/a	3	Moderate / Good / Good	Moderate / 40+ / **B**
T9	Semi-Mature **Variegated Sycamore** Acer pseudoplatanus.	10	3.5	35	W 5, N 5, E 5, S 3		Form: Multi-stemmed at 3m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required. n/a	3	Moderate / Good / Good	Moderate / 40+ / **B**
T10	Early-Mature **Sycamore** Acer pseudoplatanus.	16	8	69	W 8, N 8, E 6, S 7		Form: Twin-stemmed at 4m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (now healed). **Defects: No evidence of significant pruning.**	No action required. n/a	3	Moderate / Good / Good	High / 40+ / **A**
T11	Early-Mature **Lime** Tilia sp.	16	4	64	W 7, N 7, E 7, S 6		Form: Multi-stemmed at 4.5m with a well-formed crown. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Good specimen.	No action required. n/a	3	High / Good / Good	High / 40+ / **A**
T12	Semi-Mature **Horse Chestnut** Aesculus hippocastanum.	9	4	49	W 5, N 6, E 6, S 6		Form: Multi-stemmed at 2.5m with a balanced crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: Significant symptoms of Bleeding Canker (exudates, cracking bark all around stem).** Other: Low vigour.	Remove. Moderate	N/A	**Very Low** / Poor / Poor	Low / <10 / **U**
T13	Early-Mature **Horse Chestnut** Aesculus hippocastanum.	11	2.5	55	W 5, N 6, E 6, S 6		Form: Multi-stemmed at 2.5m with a well-formed crown. History: Significant symptoms of Bleeding Canker (exudates, sparse canopy). **Defects: Major cavity at 2m.**	Remove. High	N/A	Low / Poor / **Very Poor**	Low / <10 / **U**
T14	Early-Mature **Lime** Tilia sp.	18	3	52	W 6, N 6, E 5, S 5		Form: Multi-stemmed at 3m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate / Good / Good	High / 40+ / **A**

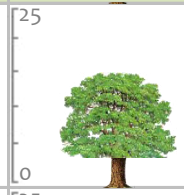
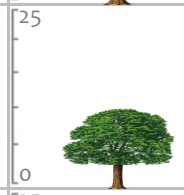
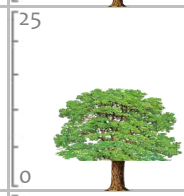
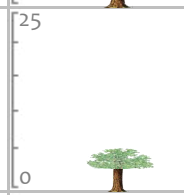
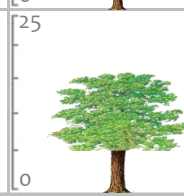
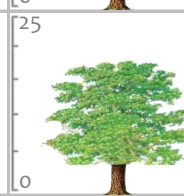
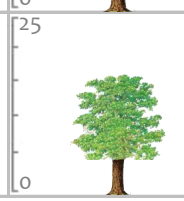
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals)		Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
								Priority	Inspect Freq (yrs)		
T15	Semi-Mature **Silver Birch** Betula pendula.	9	2.5	22	W 2, N 4, E 2, S 1		Form: Single stemmed with a slight lean and a weeping habit. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Low vigour.	No action required.	n/a / 1.5	Low / Fair / Good	Low / 10-20 / C
T16	Early-Mature **Purple Plum** Prunus cerasifera.	8	2.5	40	W 4, N 4, E 4, S 4		Form: Multi-stemmed at 2.5m with a balanced crown. History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Fair	Low / 20-40 / C
T17	Early-Mature **Ash** Fraxinus excelsior.	16	2.5	47	W 8, N 7, E 7, S 7		Form: Multi-stemmed at 3m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: No significant defects.** Other: Minor bark wound at 1m.	No action required.	n/a / 3	High / Good / Good	High / 40+ / A
T18	Early-Mature **Ash** Fraxinus excelsior.	16	3	40	W 7, N 7, E 7, S 7		Form: Multi-stemmed at 3m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required.	n/a / 3	High / Good / Good	High / 40+ / A
T19	Early-Mature **Lime** Tilia sp.	18	6	62	W 5, N 5, E 5, S 4		Form: Single stemmed and vertical with a well-formed crown. History: Multiple pruning wounds due to crown lifting (now healed), reduced. **Defects: No significant defects.** Other: Minor deadwood to upper crown.	Remove deadwood.	Low / 1.5	Moderate / Good / Good	High / 40+ / A
T20	Early-Mature **Swedish Whitebeam** Sorbus intermedia.	8	2	41	W 4, N 4, E 4, S 3		Form: Multi-stemmed at 2.5m with an unbalanced crown. History: No evidence of significant pruning. **Defects: Majority of bark has been stripped from ground level - 2m. Early decay to stem centre.**	Monitor.	Moderate / 1.5	Low / Fair / Poor	Low / <10 / C -
T21	Semi-Mature **Silver Birch** Betula pendula.	10	2.5	25	W 3, N 3, E 3, S 1		Form: Single stemmed and vertical with a weeping habit. History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: No significant defects.**	No action required.	n/a / 3	Low / Fair / Good	Low / 10-20 / C

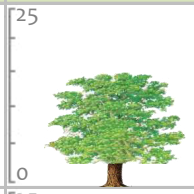
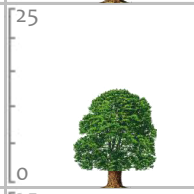
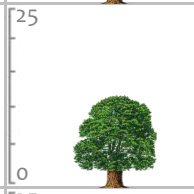
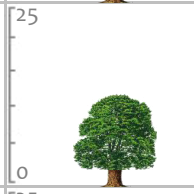
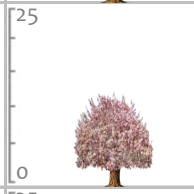
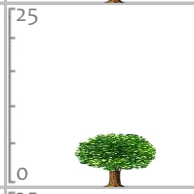
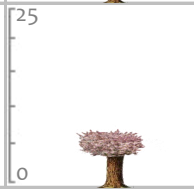
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T22	Semi-Mature **Silver Birch** Betula pendula.	6.5	4.5	24	W 1, N 1, E 1, S 1		Form: Single stemmed and vertical with a compact crown. History: Occasional pruning wounds due to crown lifting (cavities developing), reduced. **Defects: Minor deadwood to upper crown.** Other: Poor specimen.	No action required.	n/a	3	Low / Poor / Fair	Low / <10 / C -
T23	Semi-Mature **Purple Norway Maple** Acer platanoides.	8	3	36	W 4, N 4, E 4, S 4		Form: Single stemmed with a slight lean and a compact crown. History: Significant historic damage to inderside of lower limbs. **Defects: Significant deadwood throughout.** Other: Poor specimen.	No action required.	n/a	3	Low / Fair / Fair	Low / 10-20 / C
T24	Semi-Mature **Silver Birch** Betula pendula.	7	2.5	19	W 2, N 2, E 2, S 2		Form: Twin-stemmed at 2m with a balanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required.	n/a	3	Low / Fair / Good	Low / 20-40 / C
T25	Early-Mature **Cherry** Prunus sp.	13	3	49	W 7, N 7, E 7, S 6		Form: Multi-stemmed at 2.5m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.** Other: Mower damage to buttress roots.	No action required.	n/a	3	Moderate / Good / Good	Moderate / 20-40 / **B**
T26	Early-Mature **Cherry** Prunus sp.	8	2.5	47	W 6, N 6, E 6, S 6		Form: Multi-stemmed at 2m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required.	n/a	3	Moderate / Good / Good	Moderate / 20-40 / **B**
T27	Semi-Mature **Hawthorn** Crataegus monogyna.	5.5	2	39	W 3, N 3, E 4, S 3		Form: Multi-stemmed at 2.5m with a well-formed crown. History: No evidence of significant pruning. **Defects: Significant bark wounds and early decay at 2m.** Other: Acceptable condition at present.	No action required.	n/a	3	Moderate / Good / Fair	Low / 20-40 / C
T28	Semi-Mature **Hawthorn** Crataegus monogyna.	3.5	2	26	W 2, N 3, E 3, S 2		Form: Multi-stemmed at 2m with a compact crown (suppressed). History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: No significant defects.**	No action required.	n/a	3	Low / Fair / Fair	Low / 20-40 / C

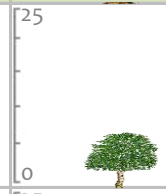
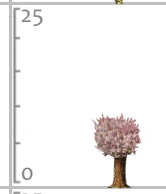
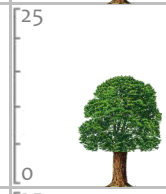
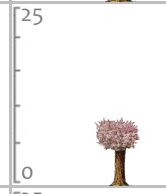
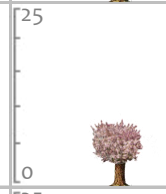
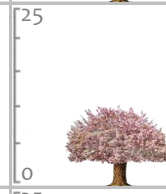
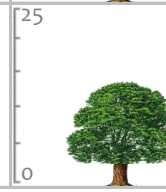
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals)		Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
								Priority	Inspect Freq (yrs)		
T29	Semi-Mature **Whitebeam** Sorbus aria.	6	3	42	W 4, N 2, E 6, S 6		Form: Single stemmed with a slight lean and an unbalanced crown (suppressed). History: Occasional pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required.	n/a / 1.5	Moderate / Good / Fair	Low / 40+ / C +
T30	Semi-Mature **Ash** Fraxinus excelsior.	12	4	41	W 5, N 4, E 6, S 4		Form: Twin-stemmed at 4m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing slowly). **Defects: Major bark wound at 1m (70% of stem).**	Monitor.	Moderate / 1	Moderate / Fair / Poor	Moderate / <10 / C -
T31	Early-Mature **Lime** Tilia sp.	16	2.5	60	W 5, N 5, E 4, S 5		Form: Multi-stemmed at 2.5m with a slightly unbalanced crown. History: Reduced. **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	High / 40+ / A
T32	Early-Mature **Lime** Tilia sp.	14	4	57	W 2, N 4, E 4, S 3		Form: Multi-stemmed at 2m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing slowly). **Defects: Significant dead branch at 2.5m.**	Remove dead branch at 2.5m.	Low / 1.5	High / Good / Good	High / 40+ / A
T33	Semi-Mature **Lime** Tilia sp.	15	3.5	40	W 4, N 4, E 4, S 3		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	High / 40+ / A
T34	Mature **Ash** Fraxinus excelsior.	21	3	89	W 9, N 9, E 9, S 8		Form: Twin-stemmed at 3m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.** Other: Excellent specimen.	No action required.	n/a / 3	High / Good / Good	High / 40+ / A
T35	Semi-Mature **Sycamore** Acer pseudoplatanus.	13	4	39	W 4, N 6, E 6, S 5		Form: Twin-stemmed at 2.5m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	Moderate / 40+ / B

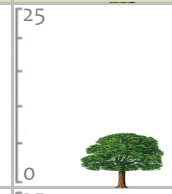
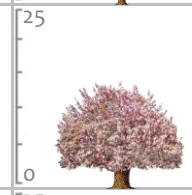
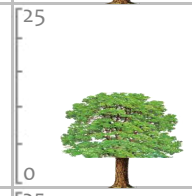
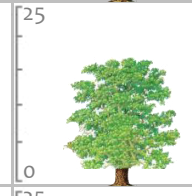
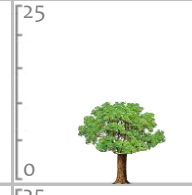
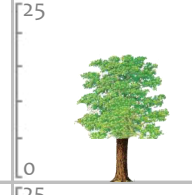
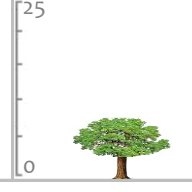
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T36	Early-Mature **Sycamore** Acer pseudoplatanus.	18	3	58	W 9, N 9, E 8, S 7		Form: Twin-stemmed at 2.5m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate Good Good	High 40+ **A**
T37	Early-Mature **Whitebeam** Sorbus aria.	9	2	48	W 3, N 5, E 5, S 4		Form: Single stemmed and leaning with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate Good Good	Low 20-40 **C +**
T38	Early-Mature **Sycamore** Acer pseudoplatanus.	18	3	57	W 8, N 8, E 8, S 7		Form: Twin-stemmed at 3m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate Good Good	High 40+ **A**
T39	Early-Mature **Norway Maple** Acer platanoides.	13	4	46	W 6, N 4, E 6, S 6		Form: Multi-stemmed at 3m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.** Other: Good specimen.	No action required. n/a	3	High Good Good	High 40+ **A**
T40	Early-Mature **Lime** Tilia sp.	14	3	39	W 5, N 5, E 5, S 4		Form: Single stemmed and vertical with a well-formed crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	High Good Good	High 40+ **A**
T41	Mature **Cherry** Prunus sp.	11	3	49	W 6, N 8, E 8, S 4		Form: Single stemmed and vertical with a balanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	Moderate Fair Good	Moderate 10-20 **B**
T42	Semi-Mature **Rowan** Sorbus aucuparia.	10	3.5	30	W 4, N 3, E 4, S 4		Form: Multi-stemmed at 2m with a balanced crown. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Minor bark wounds (acceptable condition at present).	No action required. n/a	3	Moderate Good Good	Low 20-40 **C**

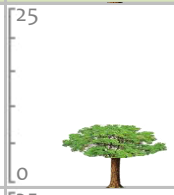
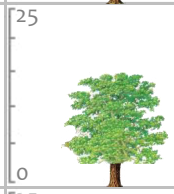
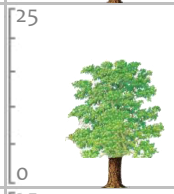
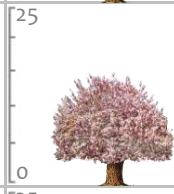
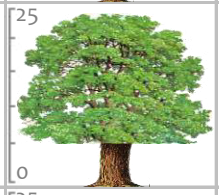
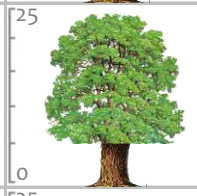
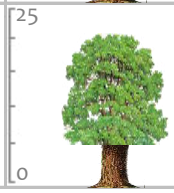
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T43	Early-Mature **Lime** Tilia sp.	13	3	44	W 4, N 2, E 4, S 3		Form: Single stemmed and vertical with a narrow, upright habit. History: Reduced. **Defects: No significant defects.**	No action required. n/a	3	Moderate Good Good	High 40+ **A**
T44	Early-Mature **Lime** Tilia sp.	13	3	45	W 4, N 4, E 4, S 2		Form: Single stemmed and vertical with a narrow, upright habit. History: Reduced. **Defects: No significant defects.**	No action required. n/a	3	Moderate Good Good	High 40+ **A**
T45	Early-Mature **Norway Maple** Acer platanoides.	14	2.5	48	W 5, N 6, E 5, S 5		Form: Multi-stemmed at 3m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate Good Good	High 40+ **A**
T46	Semi-Mature **Lime** Tilia sp.	10	3	28	W 3, N 4, E 4, S 4		Form: Single stemmed and vertical with a slightly unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Suppressed.	No action required. n/a	3	Low Fair Fair	Low 20-40 **C**
T47	Semi-Mature **Lime** Tilia sp.	14	3	35	W 3, N 5, E 5, S 3		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: Significant bark wound at base, acceptable condition at present.**	No action required. n/a	3	Moderate Good Good	Moderate 20-40 **B**
T48	Mature **Cherry** Prunus sp.	15	4	61	W 6, N 6, E 6, S 6		Form: Multi-stemmed at 3m with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate Fair Fair	Moderate 10-20 **B +**
T49	Semi-Mature **Whitebeam** Sorbus aria.	10	4	30	W 4, N 4, E 4, S 3		Form: Twin-stemmed at 2.5m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: Significant bark wound and early decay at base.**	Monitor. Moderate	1.5	Moderate Good Fair	Low 20-40 **C**

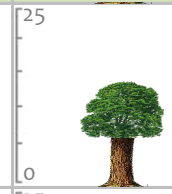
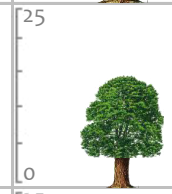
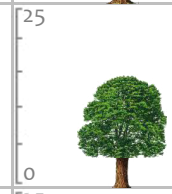
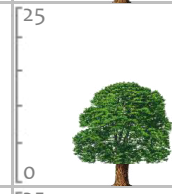
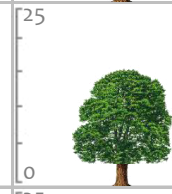
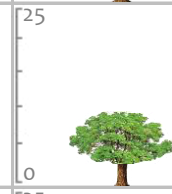
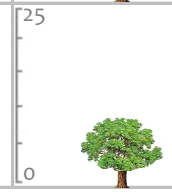
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals)		Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
								Priority	Inspect Freq (yrs)		
T50	Semi-Mature **Norway Maple** Acer platanoides.	15	4	45	W 4, N 5, E 4, S 5		Form: Multi-stemmed at 3m with a well-formed crown. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Good specimen.	No action required.	n/a / 3	High Good Good	Moderate 40+ **B +**
T51	Semi-Mature **Lime** Tilia sp.	10	3	27	W 3, N 5, E 5, S 4		Form: Single stemmed and leaning with an unbalanced crown (suppressed). History: No evidence of significant pruning. **Defects: No significant defects.**	No action required.	n/a / 3	Moderate Good Fair	Low 40+ C
T52	Semi-Mature **Norway Maple** Acer platanoides.	13	4	41	W 5, N 5, E 5, S 5		Form: Single stemmed and vertical with a well-formed crown. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Good specimen.	No action required.	n/a / 3	Moderate Good Good	Moderate 40+ **B +**
T53	Semi-Mature **Rowan** Sorbus aucuparia.	4.5	3	27	W 2, N 2, E 3, S 3		Form: Multi-stemmed at 2m with a slightly unbalanced crown (suppressed). History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: Dead branch at 2m.**	Remove dead branch.	Moderate / 3	Low Fair Fair	Low 10-20 C
T54	Early-Mature **Ash** Fraxinus excelsior.	16	6	44	W 5, N 6, E 5, S 6		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required.	n/a / 3	High Good Good	High 40+ **A**
T55	Early-Mature **Ash** Fraxinus excelsior.	18	4	45	W 4, N 7, E 7, S 6		Form: Twin-stemmed at 2m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	High Good Good	High 40+ **A**
T56	Semi-Mature **Ash** Fraxinus excelsior.	16	5	34	W 4, N 3, E 4, S 3		Form: Single stemmed and vertical with a slightly unbalanced crown. History: Multiple pruning wounds due to crown lifting (now healed). **Defects: No evidence of significant pruning.**	No action required.	n/a / 3	High Good Good	Moderate 40+ **B**

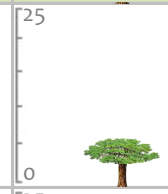
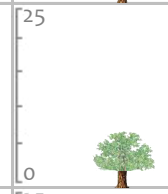
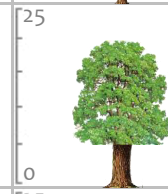
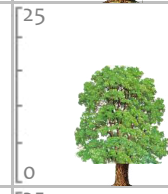
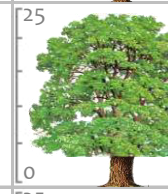
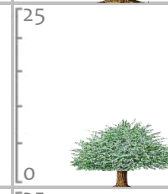
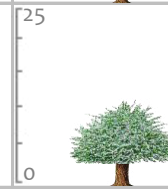
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T57	Early-Mature **Ash** Fraxinus excelsior.	15	3	46	W 5, N 6, E 6, S 5		Form: Multi-stemmed at 3m with a slightly unbalanced crown. History: Multiple pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required.	n/a	Moderate / Good / Good	High / 40+ / **A**
T58	Semi-Mature **Lime** Tilia sp.	13	2	43	W 3, N 2, E 3, S 4		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a	High / Good / Good	Moderate / 40+ / **B +**
T59	Semi-Mature **Lime** Tilia sp.	12	2	48	W 4, N 4, E 1, S 3		Form: Multi-stemmed at 2m with a compact crown. History: Reduced.	No action required.	n/a	High / Good / Good	Moderate / 40+ / **B**
T60	Semi-Mature **Lime** Tilia sp.	12	2	43	W 1, N 4, E 4, S 3		Form: Single stemmed and vertical with a slightly unbalanced crown. History: Reduced.	No action required.	n/a	High / Good / Good	Moderate / 40+ / **B**
T61	Semi-Mature **Cherry** Prunus sp.	12	2.5	30	W 4, N 4, E 3, S 1		Form: Single stemmed and leaning with a slightly unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required.	n/a	Moderate / Good / Fair	Low / 40+ / **C**
T62	Semi-Mature **Elder** Sambucus nigra.	6	2	34	W 4, N 1, E 3, S 4		Form: Multi-stemmed at 1.5m with a balanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required.	n/a	High / Good / Fair	Low / 40+ / **C**
T63	Mature **Cherry** Prunus sp.	7	4	53	W 6, N 4, E 4, S 4		Form: Single stemmed and vertical with a sparse crown. History: Heavily reduced. **Defects: Significant deadwood throughout in decline.**	Monitor.	Moderate / 1	**Very Low** / **Very Poor** / Poor	Low / <10 / **C -**

Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) N / W / E / S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals)		Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
								Priority	Inspect Freq (yrs)		
T64	Semi-Mature **Silver Birch** Betula pendula.	6	2	23	N 3, W 3, E 3, S 2		Form: Twin-stemmed at 2m with a weeping habit. History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate Good Good	Low 40+ C
T65	Mature **Cherry** Prunus sp.	10	4	36	N 4, W 3, E 4, S 1		Form: Multi-stemmed at 2.5m with a slightly unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required.	n/a / 3	Moderate Good Good	Low 20-40 C +
T66	Early-Mature **Lime** Tilia sp.	15	5	44	N 2, W 4, E 4, S 2		Form: Twin-stemmed at 8m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	High Good Good	High 40+ A
T67	Semi-Mature **Cherry** Prunus sp.	9	5	30	N 2, W 3, E 3, S 3		Form: Twin-stemmed at 2.5m with a compact crown. History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: No significant defects.**	No action required.	n/a / 3	Low Fair Good	Low 40+ C
T68	Semi-Mature **Cherry** Prunus sp.	9	3	31	N 4, W 3, E 3, S 3		Form: Twin-stemmed at 2.5m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate Good Good	Low 40+ C
T69	Early-Mature **Cherry** Prunus sp.	10	3	41	N 3, W 4, E 5, S 5		Form: Twin-stemmed at 2.5m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	High Good Good	Moderate 40+ B
T70	Early-Mature **Lime** Tilia sp.	14	3	45	N 4, W 4, E 4, S 4		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting. **Defects: No evidence of significant pruning.**	No action required.	n/a / 3	High Good Good	High 40+ A

Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T71	Semi-Mature **Lime** Tilia sp.	6	2.5	17	W 3, N 3, E 3, S 3		Form: Twin-stemmed at 2m with a compact crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required.	n/a / 3	High / Good / Good	Low / 40+ / C
T72	Mature **Cherry** Prunus sp.	14	2.5	51	W 4, N 6, E 7, S 4		Form: Single stemmed and vertical with a well-formed crown. History: Multiple pruning wounds due to crown lifting (now healed). **Defects: No evidence of significant pruning.**	No action required.	n/a / 3	Moderate / Good / Good	Moderate / 20-40 / B
T73	Semi-Mature **Ash-leafed Maple** Acer negundo.	12	4	38	W 7, N 5, E 5, S 2		Form: Single stemmed and vertical with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	High / Good / Good	Moderate / 40+ / B
T74	Semi-Mature **Ash** Fraxinus excelsior.	17	2	38	W 6, N 3, E 5, S 4		Form: Single stemmed and vertical with a balanced crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: Major bark wound at base.**	No action required.	n/a / 3	Moderate / Good / Fair	Low / 10-20 / C
T75	Semi-Mature **Ash-leafed Maple** Acer negundo.	10	4	27	W 3, N 4, E 3, S 3		Form: Single stemmed and vertical with a well-formed crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	High / Good / Good	Low / 40+ / C
T76	Semi-Mature **Ash** Fraxinus excelsior.	17	6	34	W 4, N 3, E 3, S 4		Form: Twin-stemmed at 2m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	Moderate / 40+ / B
T77	Semi-Mature **Ash-leafed Maple** Acer negundo.	7	3	27	W 4, N 3, E 4, S 4		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	Low / 40+ / C +

Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T78	Semi-Mature **Ash-leafed Maple** Acer negundo.	7	3.5	24	W 4, N 4, E 4, S 4		Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	Low / 40+ / C +
T79	Semi-Mature **Ash** Fraxinus excelsior.	15	3	29	W 4, N 4, E 4, S 4		Form: Twin-stemmed at 2.5m with a narrow, upright habit. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	High / Good / Good	Moderate / 40+ / B
T80	Early-Mature **Ash** Fraxinus excelsior.	17	4	41	W 3, N 4, E 5, S 3		Form: Twin-stemmed at 2m with a slightly unbalanced crown. History: Multiple pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	High / 40+ / A -
T81	Mature **Cherry** Prunus sp.	15	3	53	W 5, N 5, E 5, S 5		Form: Multi-stemmed at 2m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	Moderate / 40+ / B
T82	Mature **London Plane** Platanus x hispanica.	24	6	106	W 8, N 8, E 8, S 8		Position: Situated on third party land. Form: Twin-stemmed at 5m with a well-formed crown. History: Lapsed pollard. **Defects: No significant defects.** Other: Limited inspection, dimensions estimated.	No action required.	n/a / 3	High / Good / Good	High / 40+ / A +
T83	Mature **London Plane** Platanus x hispanica.	24	6	96	W 6, N 6, E 6, S 6		Position: Situated on third party land. Form: Twin-stemmed at 5m with a well-formed crown. History: No evidence of significant pruning. **Defects: No significant defects.** Other: Limited inspection, dimensions estimated.	No action required.	n/a / 3	Moderate / Good / Good	High / 40+ / A +
T84	Mature **London Plane** Platanus x hispanica.	21	6	90	W 3, N 6, E 3, S 6		Position: Situated on third party land. Form: Multi-stemmed at 4m with a well-formed crown. History: Reduced. **Defects: No significant defects.** Other: Limited inspection, dimensions estimated.	No action required.	n/a / 3	High / Good / Good	High / 40+ / A

Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T85	Mature **Lime** Tilia sp.	14	7	75	W 3, N 3, E 3, S 3		Position: Situated on third party land. Form: Single stemmed and vertical with a well-formed crown. History: Reduced. **Defects: Significant decay at base.**	Decay detection required. Moderate	1	Moderate / Good / Fair	High / 20-40 / **B**
T86	Semi-Mature **Lime** Tilia sp.	15	3.5	46	W 1, N 4, E 4, S 3		Position: Street tree. Form: Twin-stemmed at 3m with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate / Good / Good	High / 40+ / **A -**
T87	Semi-Mature **Lime** Tilia sp.	15	4	37	W 2, N 3, E 4, S 4		Position: Street tree. Form: Single stemmed and vertical with a well-formed crown. History: Occasional pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	Moderate / Good / Good	High / 40+ / **A -**
T88	Semi-Mature **Lime** Tilia sp.	14	3	41	W 2, N 4, E 5, S 4		Form: Twin-stemmed at 6m with a slightly unbalanced crown. History: Multiple pruning wounds due to crown lifting (healing well). **Defects: No significant defects.**	No action required. n/a	3	High / Good / Good	Moderate / 40+ / **B +**
T89	Early-Mature **Lime** Tilia sp.	16	3	32	W 4, N 3, E 4, S 4		Form: Twin-stemmed at 2m with a slightly unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	High / Good / Good	High / 40+ / **A**
T90	Semi-Mature **Sycamore** Acer pseudoplatanus.	9	3	27	W 4, N 4, E 4, S 4		Form: Single stemmed and vertical with a compact crown. History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: No significant defects.**	No action required. n/a	3	Moderate / Good / Good	Low / 40+ / **C**
T91	Semi-Mature **Sycamore** Acer pseudoplatanus.	8	2.5	21	W 3, N 3, E 3, S 3		Form: Multi-stemmed at 2m with an unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	Moderate / Good / Good	Low / 40+ / **C**

Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W N E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
T92	Semi-Mature **Sycamore** Acer pseudoplatanus.	5	3	19	W 3, N 2, E 3, S 3		Form: Twin-stemmed at 2.5m with a sparse crown (leaning and suppressed). History: Occasional pruning wounds due to crown lifting (healing slowly). **Defects: No significant defects.**	No action required. n/a	3	Low / Fair / Fair	Low / 40+ / C
T93	Semi-Mature **Swedish Whitebeam** Sorbus intermedia.	6	2.5	21	W 2, N 1, E 3, S 3		Form: Single stemmed and leaning with an unbalanced crown (suppressed). History: Occasional pruning wounds due to crown lifting (now healed). **Defects: No significant defects.**	No action required. n/a	3	Moderate / Good / Fair	Low / 20-40 / C
T94	Mature **Silver Maple** Acer saccharinum.	20	6	61	W 4, N 2, E 5, S 4		Form: Twin-stemmed at 3m with a well-formed crown. History: Reduced on one side. **Defects: No significant defects.**	No action required. n/a	3	High / Good / Good	High / 40+ / A
T95	Semi-Mature **Silver Maple** Acer saccharinum.	16	3	41	W 3, N 3, E 6, S 2		Form: Single stemmed with a slight lean and an unbalanced crown (suppressed). History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	Low / Fair / Fair	Low / 40+ / C
T96	Mature **Silver Maple** Acer saccharinum.	24	4	80	W 8, N 10, E 8, S 4		Form: Multi-stemmed at 4m with an unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	High / Good / Good	High / 40+ / A
T97	Early-Mature **Apple** Malus sp.	8	2.5	30	W 3, N 5, E 4, S 4		Form: Multi-stemmed at 2.5m with an unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	High / Good / Good	Low / 20-40 / C
T98	Early-Mature **Apple** Malus sp.	11	3	40	W 3, N 5, E 4, S 4		Form: Multi-stemmed at 2m with a narrow, upright habit. History: No evidence of significant pruning. **Defects: No significant defects.**	No action required. n/a	3	High / Good / Good	Low / 40+ / C +

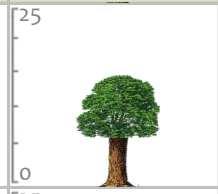
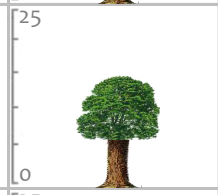
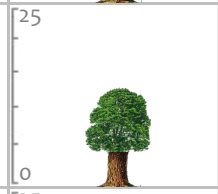
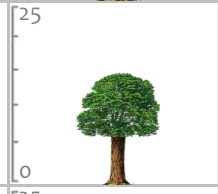
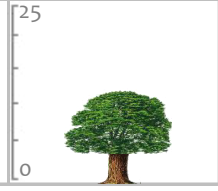
Reference (G = Group, H = Hedge)	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) W / N / E / S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals)		Vigour / Physiological Condition / Structural Condition	Amenity Value / Life Expectancy (yrs) / Retention Category
								Priority	Inspect Freq (yrs)		
T99	Mature **Lime** Tilia sp.	15	7	59	W 3, N 3, E 3, S 3		Form: Single stemmed and vertical with a narrow, upright habit. History: Reduced. **Defects: No significant defects.**	No action required.	n/a / 3	High / Good / Good	High / 40+ / **A -**
T100	Mature **Lime** Tilia sp.	15	7	70	W 3, N 3, E 3, S 3		Position: Raised planter. Form: Single stemmed and vertical with a narrow, upright habit. History: Reduced. **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	High / 40+ / **A**
T101	Mature **Lime** Tilia sp.	13	5	66	W 2, N 1, E 3, S 3		Position: Raised planter. Form: Single stemmed and vertical with a narrow, upright habit. History: Reduced. **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	High / 40+ / **A**
T102	Mature **Lime** Tilia sp.	15	7	42	W 3, N 3, E 3, S 3		Position: Raised planter. Form: Single stemmed and vertical with a narrow, upright habit. History: Reduced. **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	High / 40+ / **A**
T103	Mature **Lime** Tilia sp.	12	4	65	W 4, N 4, E 4, S 4		Position: Raised planter. Form: Single stemmed and vertical with a narrow, upright habit. History: Reduced. **Defects: No significant defects.**	No action required.	n/a / 3	Moderate / Good / Good	Moderate / 40+ / **B**

Photo 1

Photo 5

Photo 7

Photo 9

Photo 12

Photo 14

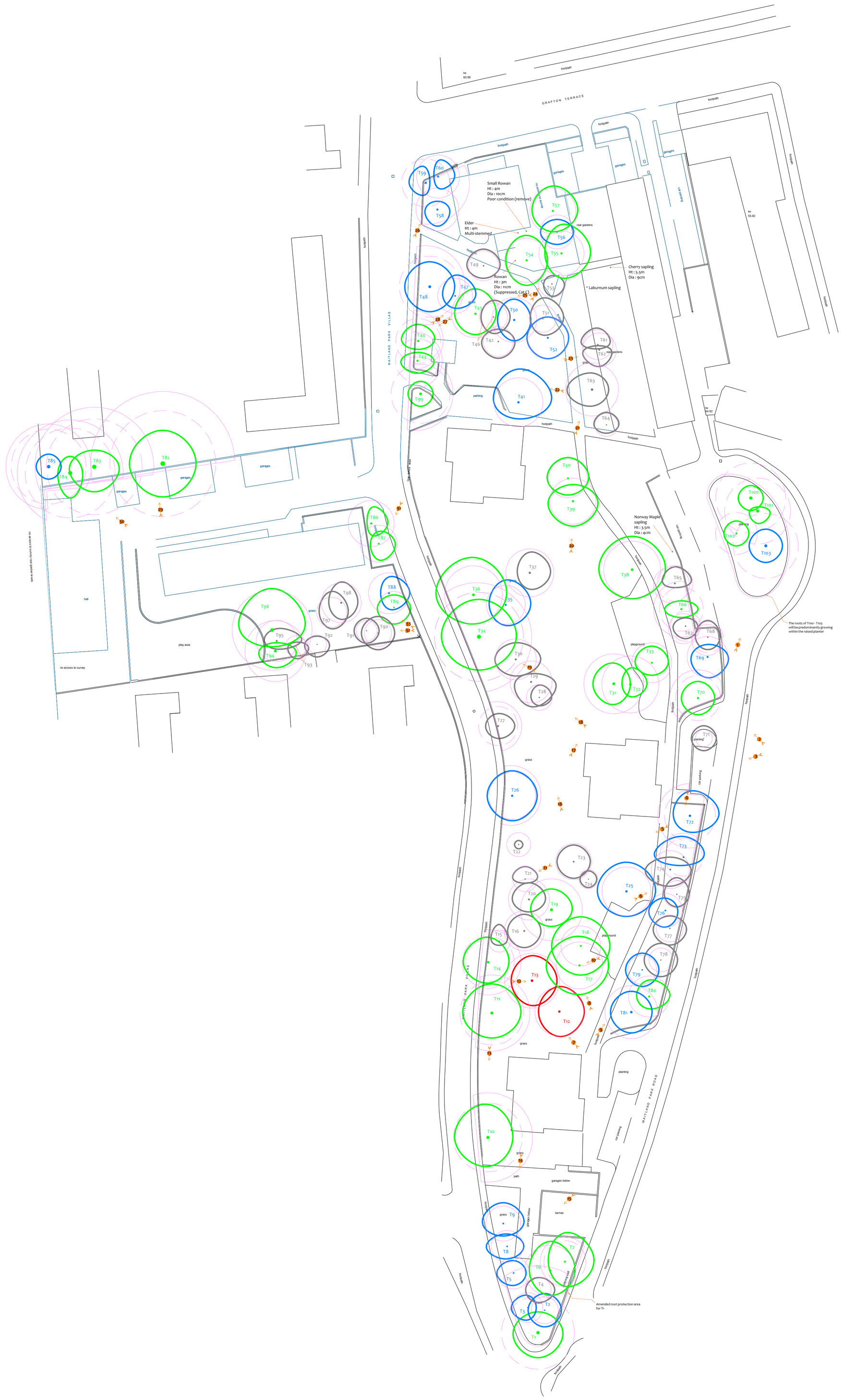
Photo 18

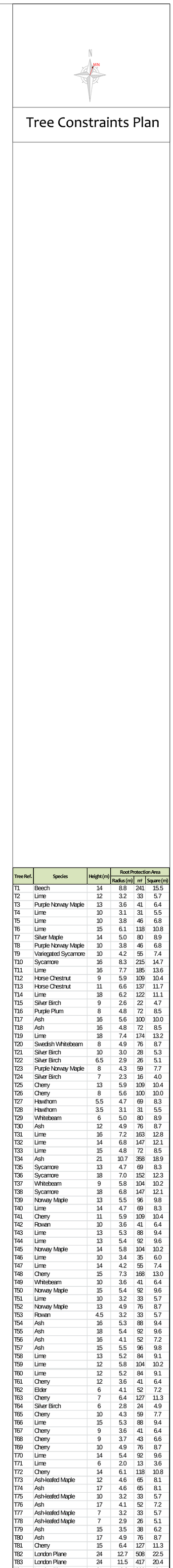
Photo 21

Photo 25

Photo 32

See the accompanying report for more photogrphs





Tree Constraints Plan

Tree Ref.	Species	Height (m)	Root Protection Area		
			Radius (m)	m²	Square (m)
T1	Beech	14	8.8	241	15.5
T2	Lime	12	3.2	33	5.7
T3	Purple Norway Maple	13	3.6	41	6.4
T4	Lime	10	3.1	31	5.5
T5	Lime	10	3.8	46	6.8
T6	Lime	15	6.1	118	10.8
T7	Silver Maple	14	5.0	80	8.9
T8	Purple Norway Maple	10	3.8	46	6.8
T9	Variegated Sycamore	10	4.2	55	7.4
T10	Sycamore	16	8.3	215	14.7
T11	Lime	16	7.7	185	13.6
T12	Horse Chestnut	9	5.9	109	10.4
T13	Horse Chestnut	11	6.6	137	11.7
T14	Lime	18	6.2	122	11.1
T15	Silver Birch	9	2.6	22	4.7
T16	Purple Plum	8	4.8	72	8.5
T17	Ash	16	5.6	100	10.0
T18	Ash	16	4.8	72	8.5
T19	Lime	18	7.4	174	13.2
T20	Swedish Whitebeam	8	4.9	76	8.7
T21	Silver Birch	10	3.0	28	5.3
T22	Silver Birch	6.5	2.9	26	5.1
T23	Purple Norway Maple	8	4.3	59	7.7
T24	Silver Birch	7	2.3	16	4.0
T25	Cherry	13	5.9	109	10.4
T26	Cherry	8	5.6	100	10.0
T27	Hawthorn	5.5	4.7	69	8.3
T28	Hawthorn	3.5	3.1	31	5.5
T29	Whitebeam	6	5.0	80	8.9
T30	Ash	12	4.9	76	8.7
T31	Lime	16	7.2	163	12.8
T32	Lime	14	6.8	147	12.1
T33	Lime	15	4.8	72	8.5
T34	Ash	21	10.7	358	18.9
T35	Sycamore	13	4.7	69	8.3
T36	Sycamore	18	7.0	152	12.3
T37	Whitebeam	9	5.8	104	10.2
T38	Sycamore	18	6.8	147	12.1
T39	Norway Maple	13	5.5	96	9.8
T40	Lime	14	4.7	69	8.3
T41	Cherry	11	5.9	109	10.4
T42	Rowan	10	3.6	41	6.4
T43	Lime	13	5.3	88	9.4
T44	Lime	13	5.4	92	9.6
T45	Norway Maple	14	5.8	104	10.2
T46	Lime	10	3.4	35	6.0
T47	Lime	14	4.2	55	7.4
T48	Cherry	15	7.3	168	13.0
T49	Whitebeam	10	3.6	41	6.4
T50	Norway Maple	15	5.4	92	9.6
T51	Lime	10	3.2	33	5.7
T52	Norway Maple	13	4.9	76	8.7
T53	Rowan	4.5	3.2	33	5.7
T54	Ash	16	5.3	88	9.4
T55	Ash	18	5.4	92	9.6
T56	Ash	16	4.1	52	7.2
T57	Ash	15	5.5	96	9.8
T58	Lime	13	5.2	84	9.1
T59	Lime	12	5.8	104	10.2
T60	Lime	12	5.2	84	9.1
T61	Cherry	12	3.6	41	6.4
T62	Elder	6	4.1	52	7.2
T63	Cherry	7	6.4	127	11.3
T64	Silver Birch	6	2.8	24	4.9
T65	Cherry	10	4.3	59	7.7
T66	Lime	15	5.3	88	9.4
T67	Cherry	9	3.6	41	6.4
T68	Cherry	9	3.7	43	6.6
T69	Cherry	10	4.9	76	8.7
T70	Lime	14	5.4	92	9.6
T71	Lime	6	2.0	13	3.6
T72	Cherry	14	6.1	118	10.8
T73	Ash-leafed Maple	12	4.6	65	8.1
T74	Ash	17	4.6	65	8.1
T75	Ash-leafed Maple	10	3.2	33	5.7
T76	Ash	17	4.1	52	7.2
T77	Ash-leafed Maple	7	3.2	33	5.7
T78	Ash-leafed Maple	7	2.9	26	5.1
T79	Ash	15	3.5	38	6.2
T80	Ash	17	4.9	76	8.7
T81	Cherry	15	6.4	127	11.3
T82	London Plane	24	12.7	508	22.5
T83	London Plane	24	11.5	417	20.4
T84	London Plane	21	10.8	366	19.1
T85	Lime	14	9.0	254	16.0
T86	Lime	15	5.5	96	9.8
T87	Lime	15	4.4	62	7.9
T88	Lime	14	4.9	76	8.7
T89	Lime	16	3.8	46	6.8
T90	Sycamore	9	3.2	33	5.7
T91	Sycamore	8	2.5	20	4.5
T92	Sycamore	5	2.3	16	4.0
T93	Swedish Whitebeam	6	2.5	20	4.5
T94	Silver Maple	20	7.3	168	13.0
T95	Silver Maple	16	4.9	76	8.7
T96	Silver Maple	24	9.6	290	17.0
T97	Apple	8	3.6	41	6.4
T98	Apple	11	4.8	72	8.5
T99	Lime	15	7.1	157	12.5
T100	Lime	15	8.4	222	14.9
T101	Lime	13	7.9	197	14.0
T102	Lime	15	5.0	80	8.9
T103	Lime	12	7.8	191	13.8

Drawing No:	CCL 09056 / TCP Rev: 1
Title:	Tree Constraints Plan (Existing Layout)
Site:	Maitland Park
Scale:	1:500 (0, 12.5, 25m) Paper Size: A1

CROWN
Arboricultural Consultants
01422 316660

Tree Retention Categories
Stems & canopies shown

Category A tree	Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
Category B tree	Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees
Category C tree	Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.
Category U tree	Trees unsuitable for retention due to their very poor condition.

Tree Constraints Plan
Existing Layout

BS 5837 Root Protection Area (radius = 12xstem diameter)

Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building.

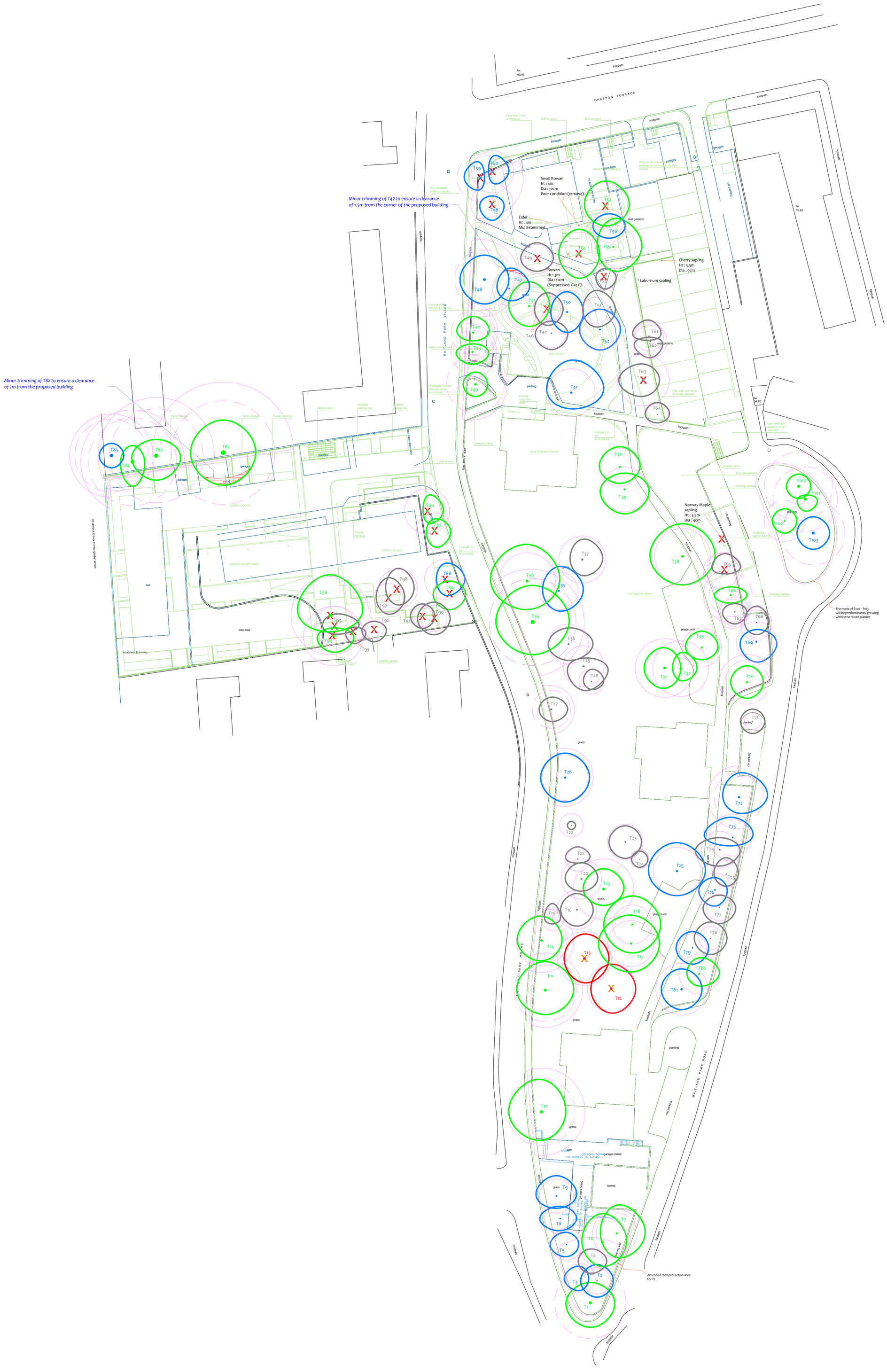
Root Protection Area having been amended to account for for site conditions

T1 = Tree No 1 G2 = Group No 2 H3 = Hedge No 3

1 Photo 1

MN = Measured North:

Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.



Tree Removal Plan

(Existing Layout with Proposals Overlaid)

Tree Ref.	Species	Height (m)	Root Protection Area		
			Radius (m)	m²	Square (m)
T1	Beech	14	8.8	241	15.5
T2	Lime	12	3.2	33	5.7
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T4	Lime	10	3.1	31	5.5
T5	Lime	10	3.8	46	6.8
T6	Lime	15	6.1	118	10.8
T7	Silver Maple	14	5.0	80	8.9
T8	Purple Norway Maple	10	3.8	46	6.8
T9	Variegated Sycamore	10	4.2	55	7.4
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T11	Lime	16	7.7	185	13.6
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T24	Silver Birch	7	2.3	16	4.0
T25	Cherry	13	5.9	109	10.4
T26	Cherry	8	5.6	100	10.0
T27	Hawthorn	5.5	4.7	69	8.3
T28	Hawthorn	3.5	3.1	31	5.5
T29	Whitebeam	6	5.0	80	8.9
T30	Ash	12	4.9	76	8.7
T31	Lime	16	7.2	163	12.8
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T43	Lime	13	5.3	88	9.4
T44	Lime	13	5.4	92	9.6
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T46	Lime	10	3.4	35	6.0
T47	Lime	14	4.2	55	7.4
T48	Cherry	15	7.3	168	13.0
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T50	Norway Maple	15	5.4	92	9.6
T51	Lime	10	3.2	33	5.7
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T101	Lime	13	7.9	197	14.0
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T103	Lime	12	7.8	191	13.8

Drawing No:	CCL 09056 / TRP Rev: 1
Title:	Tree Removal Plan (Existing Layout with Proposals Overlaid)
Site:	Maitland Park
Scale:	1:500 (0, 12.5, 25m) Paper Size: A1

CROWN
Arboricultural Consultants
01422 316660

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- Category A tree — Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
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Tree Removal Plan

Existing Layout with Proposals Overlaid

- BS 5837 Root Protection Area (radius = 12xstem diameter)
- Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building.
- Root Protection Area having been amended to account for for site conditions

X — Tree to be removed to facilitate the proposal

X — Tree to be removed due to its low quality

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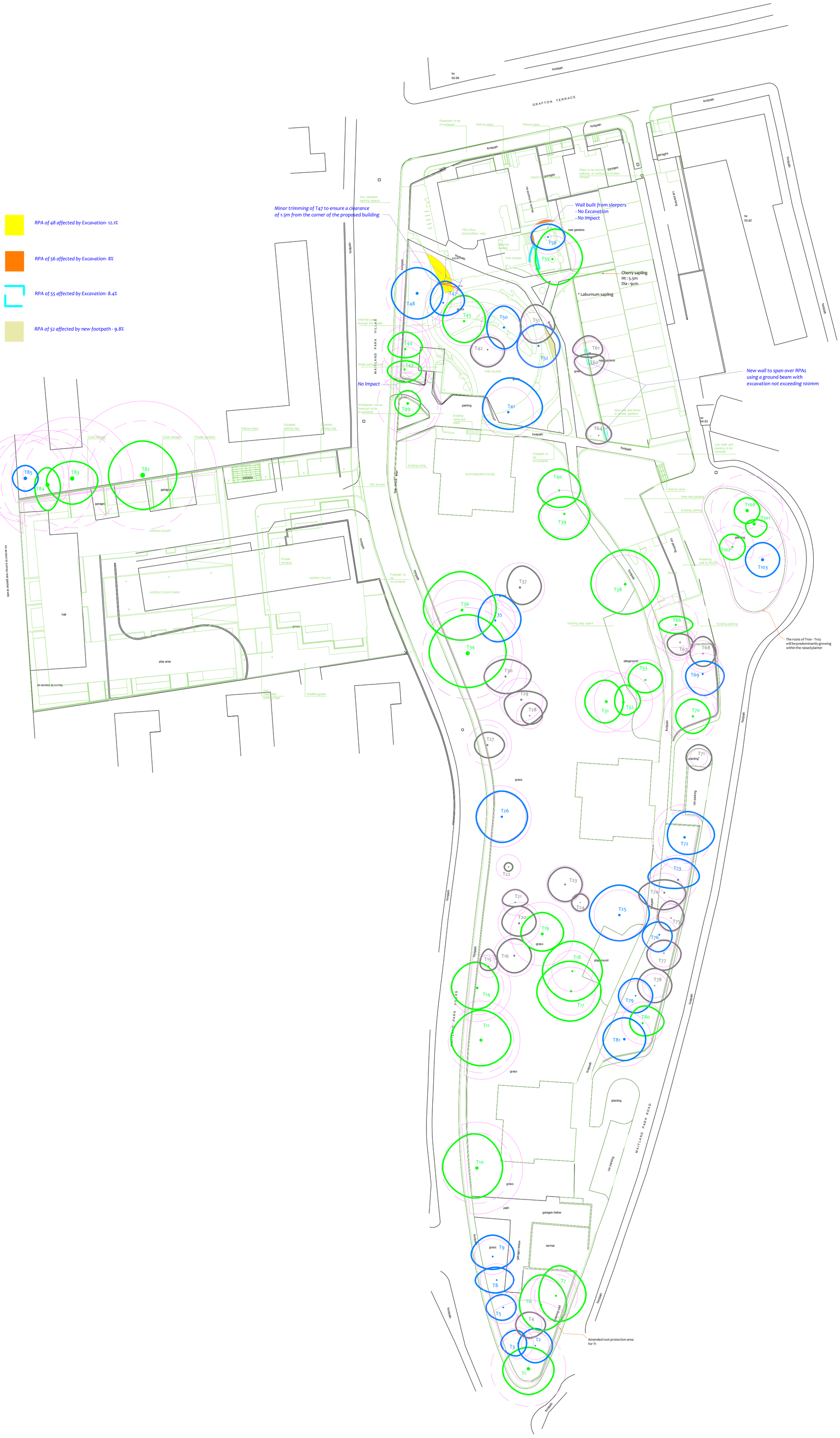
Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.



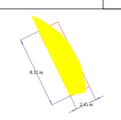
N

MN

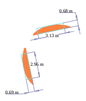
Impact Assessment Plan

(Existing Layout with Proposals Overlaid)

T48	RPA Affected by Excavation		
Total RPA (sqm)	RPA affected (sqm)	RPA affected (%)	
168	20.4	12.1	



T56	RPA Affected by Excavation		
Total RPA (sqm)	RPA affected (sqm)	RPA affected (%)	
52	4.2	8	



T55	RPA Affected by Excavation		
Total RPA (sqm)	RPA affected (sqm)	RPA affected (%)	
92	7.8	8.4	

T52	RPA Affected by New Footpath		
Total RPA (sqm)	RPA affected (sqm)	RPA affected (%)	
76	7.5	9.8	

Tree Ref.	Species	Height (m)	Root Protection Area		
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T7	Silver Maple	14	5.0	80	8.9
T8	Purple Norway Maple	10	3.8	46	6.8
T9	Variegated Sycamore	10	4.2	55	7.4
T10	Sycamore	16	8.3	215	14.7
T11	Lime	16	7.7	185	13.6
T12	Horse Chestnut	9	5.9	109	10.4
T13	Horse Chestnut	11	6.6	137	11.7
T14	Lime	18	6.2	122	11.1
T15	Silver Birch	9	2.6	22	4.7
T16	Purple Plum	8	4.8	72	8.5
T17	Ash	16	5.6	100	10.0
T18	Ash	16	4.8	72	8.5
T19	Lime	18	7.4	174	13.2
T20	Swedish Whitebeam	8	4.9	76	8.7
T21	Silver Birch	10	3.0	28	5.3
T22	Silver Birch	6.5	2.9	26	5.1
T23	Purple Norway Maple	8	4.3	59	7.7
T24	Silver Birch	7	2.3	16	4.0
T25	Cherry	13	5.9	109	10.4
T26	Cherry	8	5.6	100	10.0
T27	Hawthorn	5.5	4.7	69	8.3
T28	Hawthorn	3.5	3.1	31	5.5
T29	Whitebeam	6	5.0	80	8.9
T30	Ash	12	4.9	76	8.7
T31	Lime	16	7.2	163	12.8
T32	Lime	14	6.8	147	12.1
T33	Lime	15	4.8	72	8.5
T34	Ash	21	10.7	358	18.9
T35	Sycamore	13	4.7	69	8.3
T36	Sycamore	18	7.0	152	12.3
T37	Whitebeam	9	5.8	104	10.2
T38	Sycamore	18	6.8	147	12.1
T39	Norway Maple	13	5.5	96	9.8
T40	Lime	14	4.7	69	8.3
T41	Cherry	11	5.9	109	10.4
T42	Rowan	10	3.6	41	6.4
T43	Lime	13	5.3	88	9.4
T44	Lime	13	5.4	92	9.6
T45	Norway Maple	14	5.8	104	10.2
T46	Lime	10	3.4	35	6.0
T47	Lime	14	4.2	55	7.4
T48	Cherry	15	7.3	168	13.0
T49	Whitebeam	10	3.6	41	6.4
T50	Norway Maple	15	5.4	92	9.6
T51	Lime	10	3.2	33	5.7
T52	Norway Maple	13	4.9	76	8.7
T53	Rowan	4.5	3.2	33	5.7
T54	Ash	16	5.3	88	9.4
T55	Ash	18	5.4	92	9.6
T56	Ash	16	4.1	52	7.2
T57	Ash	15	5.5	96	9.8
T58	Lime	13	5.2	84	9.1
T59	Lime	12	5.8	104	10.2
T60	Lime	12	5.2	84	9.1
T61	Cherry	12	3.6	41	6.4
T62	Elder	6	4.1	52	7.2
T63	Cherry	7	6.4	127	11.3
T64	Silver Birch	6	2.8	24	4.9
T65	Cherry	10	4.3	59	7.7
T66	Lime	15	5.3	88	9.4
T67	Cherry	9	3.6	41	6.4
T68	Cherry	9	3.7	43	6.6
T69	Cherry	10	4.9	76	8.7
T70	Lime	14	5.4	92	9.6
T71	Lime	6	2.0	13	3.6
T72	Cherry	14	6.1	118	10.8
T73	Ash-leafed Maple	12	4.6	65	8.1
T74	Ash	17	4.6	65	8.1
T75	Ash-leafed Maple	10	3.2	33	5.7
T76	Ash	17	4.1	52	7.2
T77	Ash-leafed Maple	7	3.2	33	5.7
T78	Ash-leafed Maple	7	2.9	26	5.1
T79	Ash	15	3.5	38	6.2
T80	Ash	17	4.9	76	8.7
T81	Cherry	15	6.4	127	11.3
T82	London Plane	24	12.7	508	22.5
T83	London Plane	24	11.5	417	20.4
T84	London Plane	21	10.8	366	19.1
T85	Lime	14	9.0	254	16.0
T86	Lime	15	5.5	96	9.8
T87	Lime	15	4.4	62	7.9
T88	Lime	14	4.9	76	8.7
T89	Lime	16	3.8	46	6.8
T90	Sycamore	9	3.2	33	5.7
T91	Sycamore	8	2.5	20	4.5
T92	Sycamore	5	2.3	16	4.0
T93	Swedish Whitebeam	6	2.5	20	4.5
T94	Silver Maple	20	7.3	168	13.0
T95	Silver Maple	16	4.9	76	8.7
T96	Silver Maple	24	9.6	290	17.0
T97	Apple	8	3.6	41	6.4
T98	Apple	11	4.8	72	8.5
T99	Lime	15	7.1	157	12.5
T100	Lime	15	8.4	222	14.9
T101	Lime	13	7.9	197	14.0
T102	Lime	15	5.0	80	8.9
T103	Lime	12	7.8	191	13.8

Drawing No:	CCL 09056 / IAP Rev: 1
Title:	Impact Assessment Plan (Existing Layout with Proposals Overlaid)
Site:	Maitland Park
Scale:	1:500 (0, 12.5, 25m) Paper Size: A1

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Arboricultural Consultants
01422 316660

Tree Retention Categories
Stems & canopies shown

- Category A tree — Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
- Category B tree — Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees
- Category C tree — Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.
- Category U tree — Trees unsuitable for retention due to their very poor condition.

Impact Assessment Plan

Existing Layout with Proposals Overlaid

BS 5837 Root Protection Area (radius = 12xstem diameter)

Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building.

Root Protection Area having been amended to account for for site conditions

T1 = Tree No 1 G2 = Group No 2 H3 = Hedge No 3

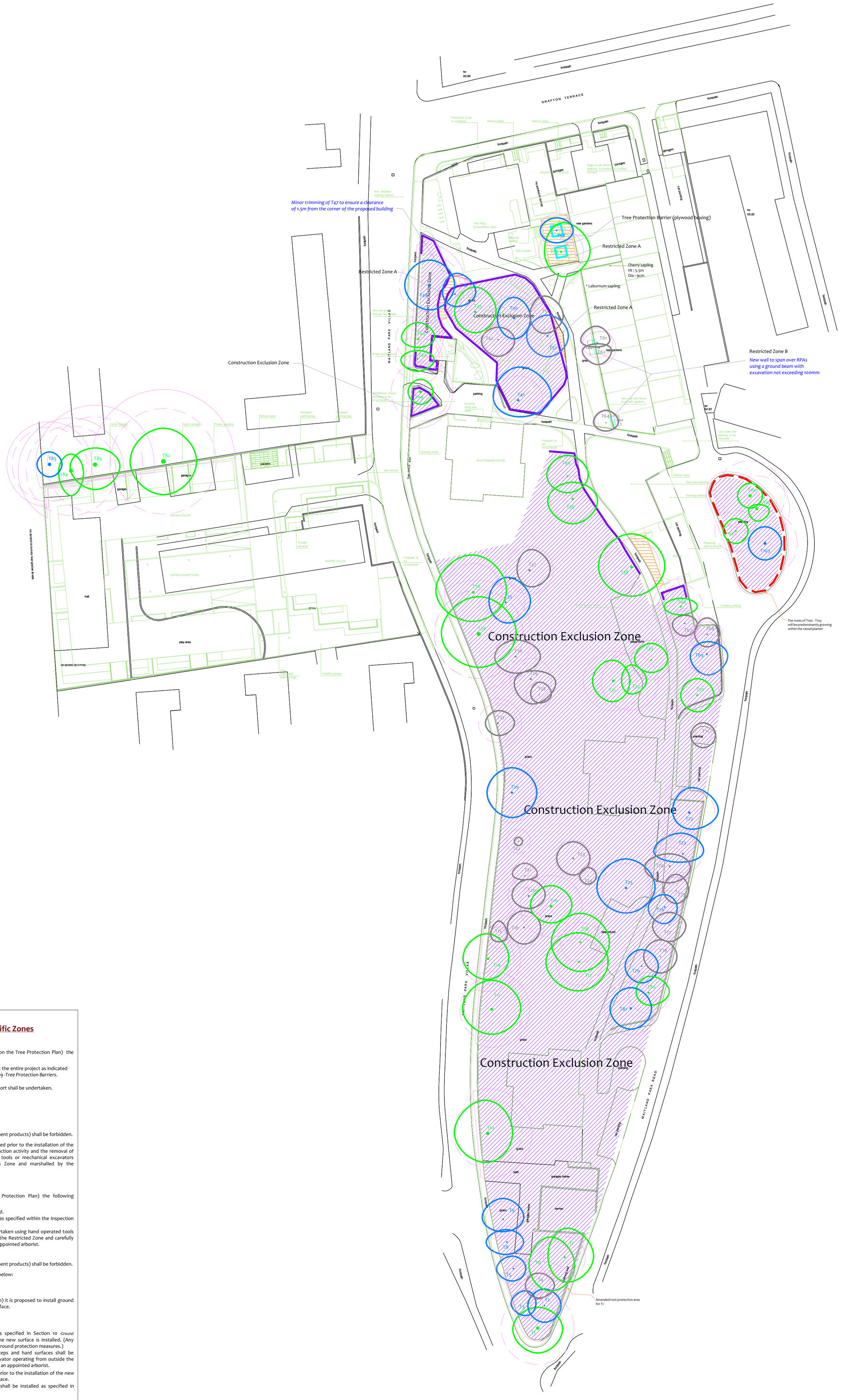
X — Tree to be removed to facilitate the proposal

X — Tree to be removed due to its low quality

Proposed pruning

MN = Measured North:

Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.



Tree Protection Plan

Tree Protection Barriers:

	Fixed protective barrier: The 'In-Ground System' or the 'Backstay System'. To remain in place for all construction activity		Construction Exclusion Zone Stem protected to a height of 2.5m with thick cloth & wire Tree Protection Boxing 1.2 x 1.2 x 2.4m high 25mm plywood
	Moveable protective barrier: The 'Backstay System'. To remain in place except when approved works are being undertaken in the Restricted Zone		Orange Barrier Mesh Fencing. Ht 1m, on steel fencing pins To remain in place when works are being undertaken in this area

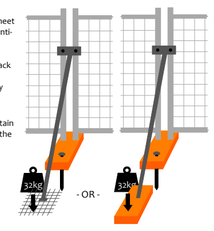
The 'Back Stay System'

2m X 3.5m weldmesh (or sheet metal) panels linked with anti-tamper couplings

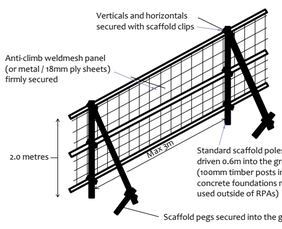
Each panel attached to a back stay which is founded in an additional foot or mesh tray as illustrated

Minimum 32kg ballast to retain rear foot or tray (including the weight of the foot/tray)

Alternate front feet to be secured with ground pins or additional ballast



The 'In-Ground' System



Construction Exclusion Zone

Within this area the following restrictions shall apply:

No excavation or land regrading whatsoever.
No storage of materials, rubble, soil or spoil.
No fires within the exclusion zone or within 10m of any tree canopy.
No site cabins or other temporary structures.
No discaharge of polluted water, cement or chemicals of any kind.
No use of any machinery, or passage or parking of vehicles.
No tree works without council consent.

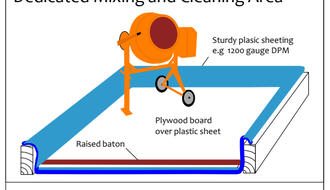
Restricted Activity Zones

Restrictions are detailed within the accompanying Method Statement

	Restricted Zone A		Restricted Zone B
	Restricted Zone C		Restricted Zone D
	Restricted Zone E		Restricted Zone F

Ground Protection where specified in Restricted Zones

Dedicated Mixing and Cleaning Area



Section B: Restrictions on Activities – Specific Zones

6.7. Construction Exclusion Zones

6.7.1. Within Construction Exclusion Zones (shaded purple on the Tree Protection Plan) the following restrictions shall apply:

- Fencing shall be erected and maintained throughout the entire project as indicated on the Tree Protection Plan and specified in Section 9 -*Tree Protection Barriers*.
- No construction activity whatsoever shall occur.
- No tree works, other than those specified in this report shall be undertaken.
- No alterations of ground levels or conditions.
- No chemicals or cement washings permitted.
- No excavation whatsoever.
- No temporary structures.
- No spoil shall be stored.
- No fires shall be permitted.
- All hazardous materials (including non-essential cement products) shall be forbidden.

6.7.2. Any hard surfaces that require removal shall be removed prior to the installation of the protective fencing or following all other major construction activity and the removal of the fencing. Surfaces shall be removed using hand tools or mechanical excavators operating from outside the Construction Exclusion Zone and marshalled by the appointed arborist.

6.8. All Restricted Activity Zones

6.8.1. Within all of these zones (indicated on the Tree Protection Plan) the following restrictions apply:

- Only essential and specified works shall be permitted.
- Operations within these zones shall be supervised as specified within the Inspection Schedule in Section 7.
- All excavation and lifting of surfaces shall be undertaken using hand operated tools or a mechanical excavator operating from outside the Restricted Zone and carefully marshalled by the local authority tree officer or an appointed arborist.
- No materials or spoil shall be stored.
- No fires shall be permitted.
- All hazardous materials (including non-essential cement products) shall be forbidden.

6.8.2. Further restrictions specific to each zone are specified below:

6.9. Restricted Activity Zone A

6.9.1. Within this zone (indicated on the Tree Protection Plan) it is proposed to install ground protection measures and possibly a new pedestrian surface.

6.9.2. The following restrictions shall apply:

- No other building works shall be permitted.
- Ground protection measures shall be installed as specified in Section 10 -*Ground Protection Measures*, and shall remain in place until the new surface is installed. (Any existing hard surfacing may be retained in place of ground protection measures.)
- Removal of existing structures such as, walls, steps and hard surfaces shall be undertaken using hand tools or a mechanical excavator operating from outside the Restricted Activity Zone and carefully marshalled by an appointed arborist.
- No vehicles or machinery shall pass over this area prior to the installation of the new surface unless ground protection measures are in place.
- Where a new pedestrian surface is proposed, it shall be installed as specified in Section 6.21.

6.10. Restricted Activity Zone B

6.10.1. Within this zone (indicated on the Tree Protection Plan) it is proposed to install foundations for a wall. Because the foundations are within a Root Protection Area, deep concrete strip foundations shall not be permitted. Instead it is proposed to span much of the Root Protection Area using a beam which will require excavation of no more than 100mm. The beam shall span a distance of no less than 3.5m as indicated on the Tree Protection Plan.

Drawing No:	CCL 09056 / TPP Rev: 1
Title:	Tree Protection Plan (Existing Layout with Proposals Overlaid)
Site:	Maitland Park
Scale:	1:500 (0 – 12.5 – 25m) Paper Size: A1

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Tree Protection Plan

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