



WE KNOW SERVICES

Arboricultural
Method
Statement

22 Huyton Church
Road
Huyton
Knowsley

30 September 2015

Written:	Reviewed:	Approved:
JB	CN	CJ

We Know Services

Yorkon Building, Archway Road, Huyton, Merseyside L36 9FB
T: 0151 443 2899, E: info@weknowservices.co.uk
www.weknowservices.co.uk

Discussion

- 1.1 The majority of the root system, of a tree, is in the surface 600mm of the soil, extending radically for distances frequently in excess of the trees height. Beyond the main structural roots (close to the base of the trunk), the root system rapidly sub-divides into smaller diameter roots: off this main system, a mass of fine roots develops.
- 1.2 The shape of the main structural roots develops in response to the need for the tree to have physical stability. Beyond these major roots, root growth and development is influenced by the availability of water and nutrients. Unless conditions are uniform around the tree, which would be unusual, the extent of the root system will be very irregular and difficult to predict. It will not generally show the symmetry seen in the branch system.
- 1.3 The parts of the root system, which are active in water and nutrient uptake, are very fine, typically less than 0.5mm diameter. They are short lived, developing in response to the needs of the tree, with the majority dying each winter. It is essential that conditions in the soil remain conducive to the healthy growth of these fine roots so that the water and nutrients necessary for healthy tree growth can be absorbed.
- 1.4 All parts of the root system, but especially the fine roots, are vulnerable to damage. Once they are damaged, water and nutrient uptake will be restricted until new roots have regenerated. Vigorous young trees will be capable of rapid regeneration but over mature trees will respond slowly, *if at all*.
- 1.5 In order to live and grow, roots need oxygen from the soil. Respiration by the roots and other soil organisms depletes this oxygen and increases carbon dioxide levels in the soil; a correct balance of these gases is normally maintained by diffusion between the soil and the atmosphere. Anything, which disturbs this balance, will affect the condition of the root system.
- 1.6 The factors that most commonly affect this diffusion adversely, and therefore damage roots, are the following: -
 - a) Compaction of the ground, which reduces the space between soil particles. This is particularly important on clay soils. A single passage by heavy equipment on clay soils or storage of heavy materials can cause significant damage.
 - b) Changing soil levels, even for a few weeks.
 - c) Covering the root area with impervious surfaces.
 - d) A rise in the level of the water table. Roots can tolerate submersion for short periods. But a permanent rise will deplete the soil of oxygen.
- 1.7 Serious damage is often caused during preliminary site works by stripping the topsoil. For this reason, such works should be avoided until protective fencing has been erected.

- 1.8 Excavations in the rooting area can sever roots. As the majority of roots are in the surface 600mm, even shallow excavations can cause damage.
- 1.9 Excavations for foundations, landscaping or service trenches are usually sufficiently deep to sever most of the roots, and it should therefore be assumed that all parts of the root system beyond the excavation would no longer serve the tree.
- 1.10 Excavation or soil stripping which severs or damages the roots may impair the stability of the tree and make it dangerous.

2.0 Method Statement

Before any form of development commences on the site the following works should be undertaken:-

2.1 Tree Works

Tree No.	Proposed Works
T1	Crown lift to 5m all round and reduce on the east (proposed property) side.
T2	Remove steel seat around base of stem.
T3	No works required.
G1	Crown lift to 5m on property side.
G2	No works required.
G3	Fell Willow.

2.1 Protective Fencing

All fencing used on the site should fully comply with BS 5837:2012 (Trees in Relation to Construction – Recommendations).

- 2.1.1 The fencing should be strong and suitable for local conditions. It should also take into account the degree of construction activity on the site.
- 2.1.2 The fencing should be at least 2.3m in height and should be erected with both a vertical and horizontal scaffolding framework capable of withstanding impact, with vertical tubes spaced at a maximum of 3 m. This should support either weldmesh panels which should be securely fixed with wire or scaffold clamps. An illustration of fencing construction is located in appendix one.
- 2.1.3 Notices should also be erected on the fencing stating 'Protected Area - No operations within fenced area'.
- 2.1.4 The positioning of the protective fencing is also very important and should be erected in the proposed location identified in appendix three. Once the fence has been erected it should never be crossed and particular care should be taken to store any materials or soil within the protected area.

2.2 Additional Precautions Outside Fences Areas.

2.2.1 Oil, bitumen, cement or other material likely to cause damage to the tree will not be stacked or discharged within 10m of the trees stem or within the protective area. Also materials in general will not be stacked or discharged within the exclusion zone.

2.2.2 Concrete mixing and washing will not be carried out within 10m of any retained trees.

2.2.3 Fires will not be lit beneath the foliage or in a position where the flames could extend to within 5m of the foliage, branches or trunk. If the fire is large then this may necessitate a distance of at least 20m.

2.2.4 Trees that are to be retained will not be used as anchorage for equipment.

2.2.5 Notice boards, telephone cables, or other services will not be attached to any part of the retained tree.

2.2.6 Care should be taken when using cranes or other equipment near the canopy of the retained trees. Also any trees to be felled in proximity to the retained trees should be done so with particular care.

2.3 Special Measures Surface for Pedestrian Access Within the Root Protection Area (RPA)

Where pedestrian access is required within the RPA the following methodology must be followed:

2.3.1 Mulch must be spread to a depth of 150mm over the dedicated area as illustrated on the tree protection plan presented in appendix four.

2.3.2 The mulch must be levelled then covered with boarding. The boarding may be either: scaffold boards laid butted together (appendix two); or plywood sheets 2440mm by 1220mm at least 19mm thick laid butted together and positioned in the areas highlighted in appendix two.

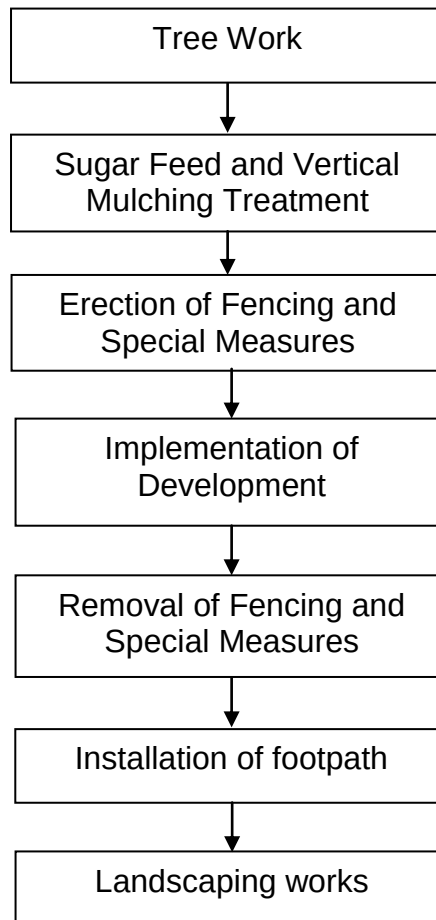
2.4 Landscaping works

2.4.1 Landscaping works will be implemented in accordance with a scheme approved by the Council and following removal of the tree protection fencing and ground protection.

2.4.2 Turf removal shall be carried out with light pedestrianized machinery.

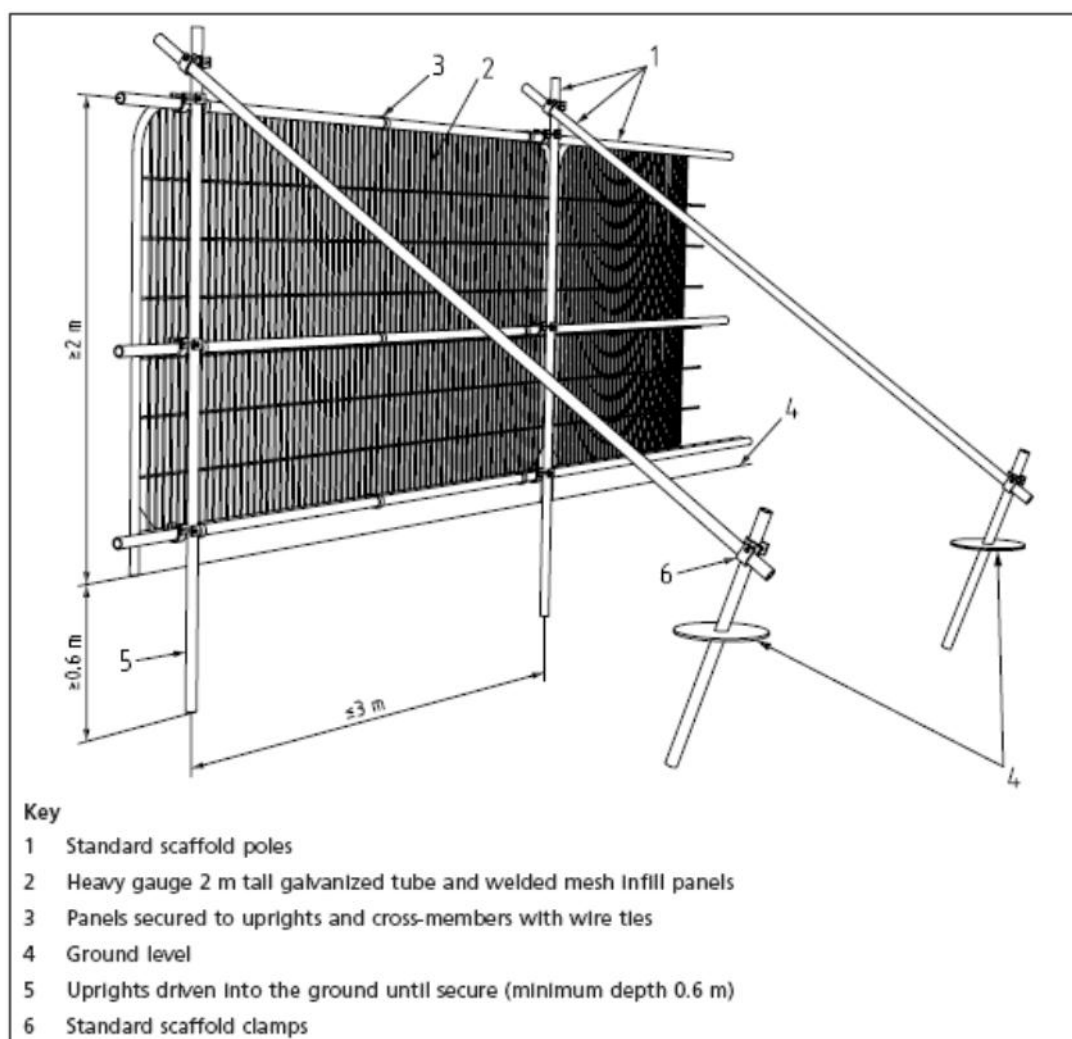
2.4.3 Within any area designated as a tree protection area, up to 100mm depth of sandy topsoil can be spread to enable the establishment of grass or other vegetation. No other additions should be made without the Local Planning Authority.

2.5 Summary of Methodology for the Protection of the Trees



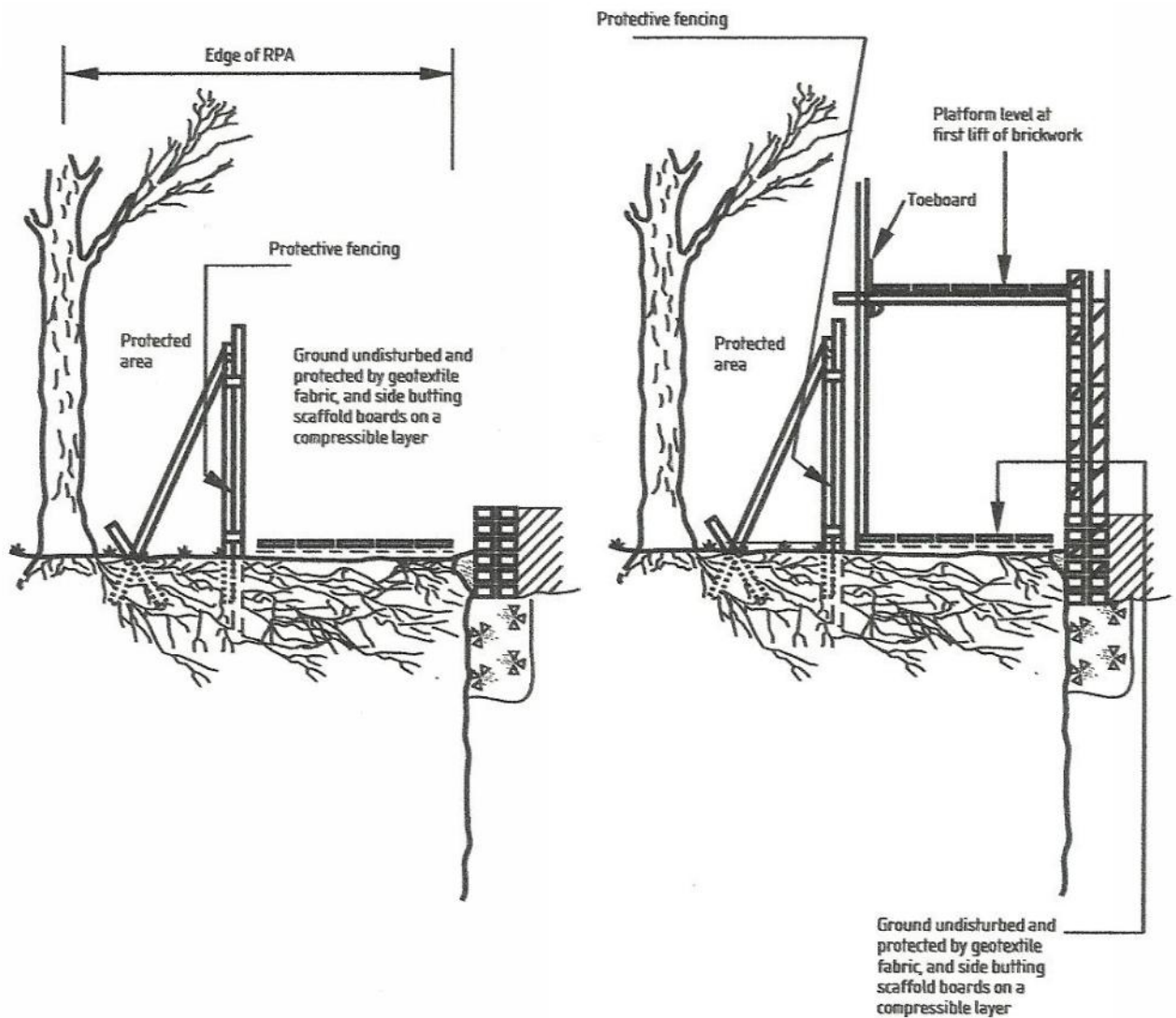
Appendix One

Tree Protection Fencing



Appendix Two

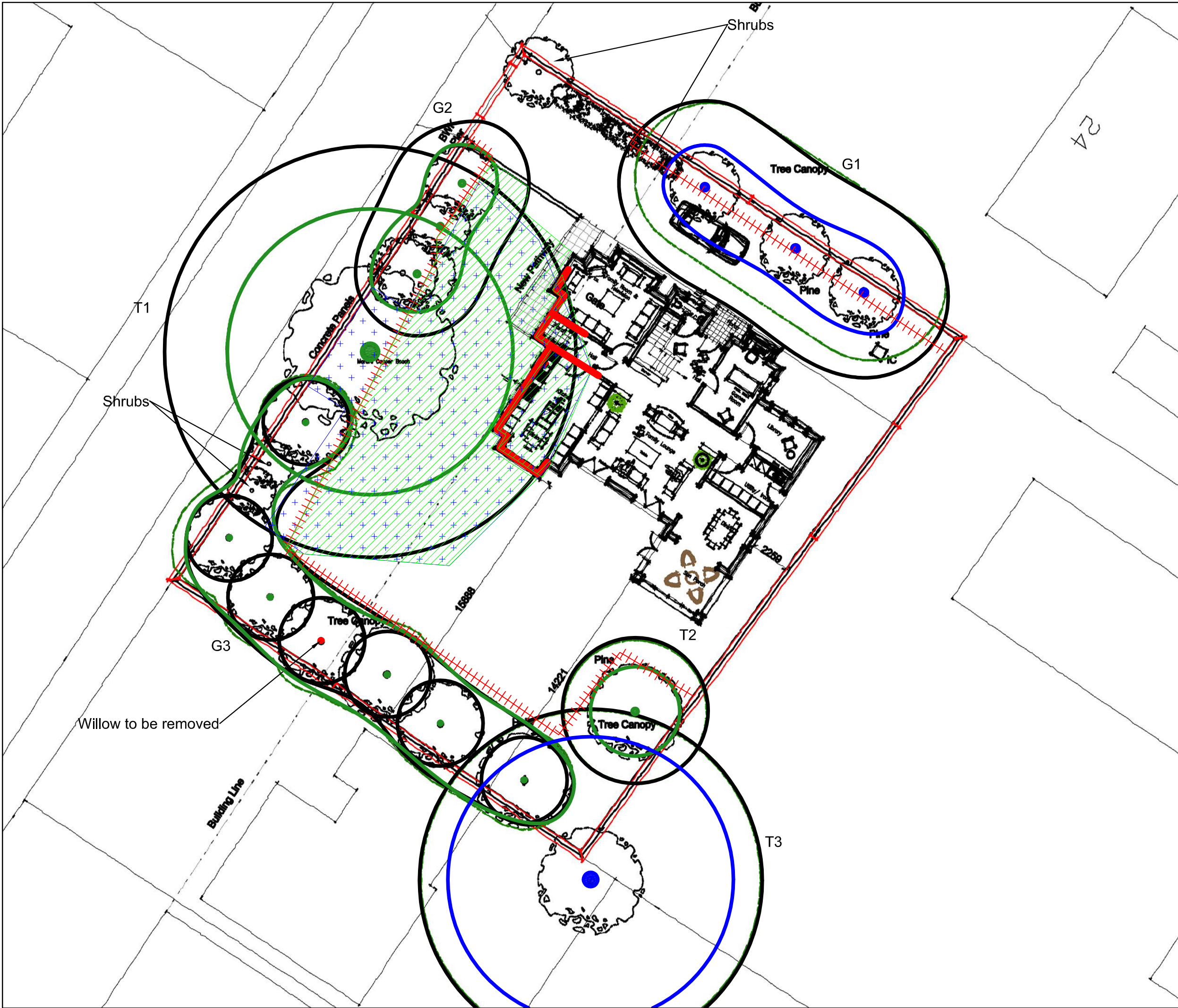
Special Measures Surface



The scaffold boards may be substituted for plywood sheets (e.g. 2440mm by 1220mm) of at least 19mm thickness and laid on 150mm depth mulch in order to spread the load of any high points on the original surface.

Appendix Three

Tree Plan



- Trees to be retained
- Trees to be pruned
- Trees to be removed
- Root protection area
- Special measures ground protection
- Sugar/ vertical mulching treatment
- Tree protection fencing
- Pile and ground beam foundations

WE KNOW SERVICES

Yorkon Building
Archway Road
PO Box 24
Huyton
L36 9YU

Tel: 0151 443 2899
Email: info@weknowservices.co.uk

Client:
KDP Architects

Site Address:
22 Huyton Church Road
Knowsley
L36 5SJ

Drawing Title:	Drawing No:	
Tree Protection Plan	15/00077(2)	
Date:	Scale:	Drawn by:
30/09/15	1:200@A3	JB

Note: Dimensions are not to be scaled from this drawing. All written measurements are to be checked on site by the contractor. Copyright WeKnow Services.
Note: All rights described in Chapter IV of the Copyright Design & Patents Act 1988 have generally been asserted.