



Tree Dimensions Arboricultural Advisory & Consultancy

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Tree protection specifications for trees adjoining the proposed development at La Pointe, Braye Road, St. Sampsons.

Scope of works.

1.1 Instruction.

I have been instructed to give specific recommendations for the protection of trees within the proposed development at La Pointe, Braye Road, St. Sampsons.

The recommendations will highlight considerations for the root protection areas outside of the development area and the management and protection of roots where incursion of the development may occur.

The trees subject to particular protection are adjoining the Mares Pelle Road and fall within the close proximity of the proposed development. The other trees adjoining the Braye Road are not subject to risk from the development and are being protected through inclusion within a construction exclusion zone.

The proposed tree protection fencing adjoining Braye Road is to be installed as a fixed brace system and shall remain in place for the duration of the construction process and only removed upon completion of the project.

Root Protection Areas. (Arboricultural Impact Assessment)

2.1 Calculation of Root Protection Areas.

The root protection areas as calculated in accordance with BS5837 have been plotted on the tree protection plan and have taken the following critical topographical influences into consideration;

- Even distribution of structural rooting patterns within the Mares Pellees Road and La Pointe Development.
- An assumption of a higher degree of feeding roots within La Pointe Field rather than the impermeable surface of the Mares Pellees Road.
- An assumption there has been a limiting effect to rooting projection within La Pointe field through soil cultivation and soil compression.

2.2 Anticipated distribution of Roots.

Taking the perceived topographical and historic agricultural practices into consideration, the root protection areas have been plotted on the plan to indicate the bias of feeding roots within the field.

The mass square meters required to sustain and support the continued development of the trees has been determined under the BS 5837 and is clearly indicated on the tree protection plan as a polygon that represents the prominent root projection within the field.

Tree and Root Protection Table for Trees adjoining The Mares Pellees Road.

Tree	Specie	Age	DBH	Cat	RPA	Percentage offset and direction.	Root protection area M2
T1	Sycamore	Y	220MM	C	2.7m	15% to the South.	23m2
T2	Poplar	Y	505mm	B	6m	15% to the South.	113m2
T3	Poplar	Y	400mm	B	4.8m	15% to the South.	72m2
T4	Poplar	Y	340mm	B	4.2m	15% to the South.	55m2
T5	Ash	Y	201mm	U	-	Tree removed.	Tree removed.
T6	Sycamore	SM	552mm	U	-	Tree removed.	Tree removed.
T7	Hawthorn	SM	80mm	C	0.9m	15% to the South.	3m2
T8	Ash	Y	205mm	B	2.4m	15% to the South.	18m2
T9	Poplar	Y	400mm	B	4.8m	15% to the South.	72m2
T10	Sycamore	Y	350mm	B	4.2m	15% to the South.	55m2
T11	Ash	Y	153mm	C	1.85m	15% to the South.	11m2
T12	Ash	Y	133mm	U	1.6m	15% to the South.	9m2
T13	Ash	Y	128mm	U	1.6m	15% to the South.	9m2
T14	Ash	Y	130mm	U	1.6m	15% to the South.	9m2

Tree	Specie	Age	DBH	Cat	RPA	Percentage offset and direction.	Root protection area M2
T15	Sycamore	Y	80& 95mm	U	1.2m	15% to the South.	5m2
T16	Ash	Y	184mm	U	2.2m	15% to the South.	16m2

Tree Protective Measures.

3.1 Tree Protection fencing.

The tree protection plan clearly identifies the location of the proposed protection fencing to be installed prior to the commencement of construction works.

The trees protected by the fencing shall be clearly identified as 'of high importance' and any operatives with the construction site will be briefed and made compliant in maintaining their protection.

Objective - To make the importance of tree protection a visual reminder and physical barrier. A sign shall be attached at regular intervals along the boundary fencing indicating the exclusion of unnecessary transition onto the area of unauthorised vehicles and storage of materials.

Mitigation – Clear signage will, along with pre-briefing of contractors, give a visual reminder of the importance of the protected trees.

4.1 Developmental Incursions within Root Protection Areas. (Method Statement)

Where there is proposed minor works proposed with the root protection areas, access within the fenced area maybe allowed to undertake the works.

The permitted access within the root protection areas shall be kept to an absolute minimum and the protection of the rooting medium will be fully compliant with the British Standard 5837 trees in relation to construction section 6.2.3.1.

This sets out the method statement for protection of trees and tree roots whilst undertaking works within the root protection area and the following recommendations must be adhered to;

Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a temporary set-back in the alignment of the tree protection barrier. In such areas suitable existing hard surfacing, that is not proposed for re-use as part of the finished design should be retained to act as

temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.

Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection should be installed as part of the implementation of physical tree protection measures prior to work starting on site.

Risk -Where proposed excavations encroach within root protection areas, the extent of the root protection area within the site shall be clearly marked with contractor spray paint. The marked area shall then be deemed as sensitive and any excavation or build up within this area shall be completed manually. Any roots greater than 5cm or clumps of fibrous roots shall be left uncut and covered until advice is sought from the project arboriculturist.

Mitigation - Reiterating the importance of root protection and the potential damage trees can suffer from root severing shall act as a safe-guarding measure for tree roots. The method statement shall be made available on site giving clear, appropriate actions for root pruning and their aftercare.

New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

The ground protection should comprise one of the following:

- a) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of composted woodchip), laid onto a geotextile membrane.
- b) For pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of composted woodchip), laid onto a geotextile membrane.
- c) For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

4.2 Extent of Proposed Works within Root Protection Areas. (Impact Assessment)

As part of the proposed development, it is envisaged that there will be a minor scope of works within root protection areas.

The extent of these works will be to facilitate access to and install the finished paving for the parking area. The fractional incursion within the Root Protection Area as detailed within the Tree Protection Plan has made express considerations for the protection of the roots should they be encountered.

The proposed minor infringement to the parking area shall be constructed in accordance with the BS5837 7.4.2 and be compliant with the following considerations;

- The design should not require excavation into the soil, including through lowering of levels and/or scraping, other than the removal, using hand tools, of any turf layer or other surface vegetation. If it is intended to use the new surface for construction access. It is essential that the extra loading and wear arising from this are taken into account during the design process.
- New permanent hard surfacing will not exceed more than 2% of any existing un-surfaced ground within the RPA.
- Where a permeable surface is to be used by vehicular traffic, a geotextile should be used at the base of construction to help prevent pollution contamination of the rooting area below.
- The hard surface should be resistant to or tolerant of deformation by tree roots, and should be set back from the stem of the tree and its above-ground root buttressing by a minimum of 500 mm to allow for growth and movement. Resulting gaps may be filled using appropriate inert granular material.
- When designing the hard surface, account should be taken of finished levels in relation to adjacent structures, including damp-proof courses.
- If a permeable surface is to be used by construction traffic, this should be protected with a temporary sacrificial surface laid over a geotextile separator to ensure that its permeability is retained.
- The excavation needed for the placement of kerbs, edgings and their associated foundations and haunchings can damage tree roots. Within the RPA, this should be avoided either by the use of alternative methods of edge support or by not using supports at all.

NOTE For example, where kerbing is required for light structures, such as footpaths, above-ground peg and board edging might be acceptable. Where areas of hard surface require edge support, the use of sleepers (pinned in place where required), gabions or other non-invasive ground-contact structures, including the use of proprietary products, can provide appropriate solutions.

4.3 Arboricultural Oversight.

As part of the developer's commitment to tree and root protection, the following considerations form the basis of a proactive arboricultural oversight as part of the overall method statement adopted.

The trees within the development are subject to risk and this risk can be mitigated if the following processes and procedures are undertaken and adhered to;

- Main contractor briefing prior to the start of works.
 1. Present and explain the importance of tree protection.
 2. Explain how trees can be affected by development works.
 3. Detail the method statement for site operatives.
 4. Ensure the main contractor fully understands the importance of the trees within the development.
 5. Supply full contact details for the project arboriculturist.
- Assess risk to trees from site operations.
 1. Identify suitable areas for material storage that are outside of the tree protection fencing.
 2. Assess areas for proposed storage and mixing of hazardous material and liquid runoff.
 3. Ensure tree protection fencing and signage is installed correctly.
- Provisions for arboricultural support and advice.
 1. Ensuring the main contractor understands the role of the project arboriculturist in limiting risk posed to trees within the development.
 2. Emphasising the importance of proactive tree protection in relation to the operation of works within root protection areas.
 3. Agreeing timescales for arboricultural site assessment for staged, programmed works where root protection areas may be subject to incursion.
 4. Explain that there shall be unannounced site visits undertaken to ascertain compliance with all tree and root protection measures.

5.1 Proposed Pruning Works to Adjoining Trees.

Proposed tree husbandry works for the established trees within the site and particularly adjoining the Mares Pellees Road shall be limited to good husbandry practices.

The removal of the lower lateral branches giving an unrestricted canopy line of a minimum of 4 meters or to where a satisfactory canopy line can be achieved should be undertaken to remove offending material that could be easily damaged during the construction process. The removal of lower canopy growth will also allow for better establishment of landscape planting and new hedges.

The pruning works should be sympathetic in accordance with the specie and limited to essential limits to allow for free passage of anticipated plant.

All tree husbandry works should be in accordance with BS3998 and carried out by suitably qualified tree service personnel.

Richard Loyd.