



**Proposed Development of
Asda Home Shopping
Purbrook Way, Havant**

**BS5837:2012
Tree Survey and Implications Assessment**

Prepared by EBS on behalf of SEP Ltd

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Report on behalf of SEP Ltd, by EBS

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1. Introduction

1.1 Purpose of Report

This report provides an impact analysis of the proposed development on trees and woodland with guidance on appropriate management and protective measures. Its primary purpose is for the planning authority to review the tree information in support of the planning submission and use as a basis for issuing planning consent or engaging in further discussion towards that end. This report is based on my site observations and the information provided

1.2 Ecological Constraints

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000, provides statutory protection for the species that inhabit trees.

Tree Survey was conducted in line with regulations set out in BS5837:2012 – Trees in relation to design, demolition and construction.

1.3 Qualifications and Experience

This report is based on site observations and the information provided, interpreted in the context of my experience. My Qualifications are a BSc (Hons) in Wildlife Conservation and I am a full member of CIEEM. EBS employees have recently completed a CIEEM training course in BS5837. I have over 8 years' experience in Arboriculture both in the private sector and local authority. During that time I have ran EBS working with environmental organisations in the UK and forestry projects in Costa Rica. Other work has included arboricultural assessments during golf course design phases, as well as assessments for private estates and individual landowners.

2. Site Evaluation

2.1 Site Visit

The site was visited on Wednesday 19th February 2014. All observations were taken from ground level. The majority of the trees and woodland were inside the boundary of the site and observations on these were confined to what was visible. The weather was dry and cool (8°C) with some overcast spells.

2.2 Site Description

The site consists mainly of hard standing with soft landscaping in a busy retail development car park situated in Havant. The site is a typical shopping centre with associated buildings and car-parking with a small variety of planted trees in soft landscaped areas. The trees in question are positioned on an embankment, behind a concrete retaining wall ~1.5m above the ground level of current lorry parking area. Proposals include the extension of the current ground level parking area into the embankment containing a number of moderate trees (area of approx. 2.5 x 22.5m). Although considered as only of moderate quality, it should be noted that the wooded area is covered by a woodland Tree Protection Order No 0908.

2.3 Collection of Data

The adjacent woodland block was assessed generically in terms of dominant species content, mean height, mean girth, crown spread, maturity, past management and remaining contribution.

2.4 Interpretation of Data

The Root Protection Area (RPA) for the individual trees was calculated using the process laid down in section 4.6 of BS5837:2012, the same principle has been used to provide a minimum RPA for the boundaries surrounding the site using the RPA's of the dominant boundary trees as guidance. Section 4.6 of BS5837:2012 is a simplistic methodology for establishing the minimum distance for protective barriers and consideration has been given to the influencing factors set out in section 4.6.3 of BS5837: 2012 in setting the RPA's on this site.

2.5 Root Protection Area

The Root Protection Area (RPA) is the area where ground disturbance must be carefully controlled. In principle, no significant disturbance should occur within the RPA of category A or B trees, and high levels of care are needed during any activities authorised within it if the trees are to be successfully retained. Generally consideration needs to be given to the space needed for the trees to be successfully retained after development had finished.

3. Survey Information

3.1 Treescape

The planted trees provide a multi-purpose function (see Figure 1 Existing Layout); firstly providing screening of the site, carbon sequestration and rainwater absorption. Whilst also improving the aesthetics of the site.

The trees are in the ownership of the site owner and covered by a woodland TPO (ref 0908).

3.2 Individual Trees

All individual trees surveyed have been bounded into one group and are detailed in the Tree Survey Schedule (Appendix Table 1) and shown on the Existing Site Plan (Appendix Figure 1).

All trees have been classified as C category trees. Trees close to the retaining wall areas have the potential to become restricted due to limited root. Although a number of individual (moderate) trees will be lost, trees retained at the top of the slope (south of development) will still conform an effective screen.

3.3 Scrub

There is no scrub habitat present in the proposed re-development area.

3.4 Hedgerows

There is no hedgerow habitat present in the proposed re-development area.

4. Arboricultural Implications Assessment

4.1 Summary of the Impact on Woodland and Trees

The impact of the proposals on the woodland and individual trees has been assessed by the extent of disturbance in the RPA's.

4.1.1 Ground Level Changes/Re-profiling

The proposal to re-profile the site does not affect the drainage in relation to any trees on site.

4.1.2 Removal

The current proposal includes removal of 8 trees to encompass the proposed expansion and approximately 18 trees to create a safe root protection area for tree to be retained. All trees proposed for removal are of moderate quality and planting of shrubs within the new barren area is expected. The trees have been recommended for removal owing to development reasons, full details are shown in the Tree Survey Plan (Appendix Table 1).

4.1.3 Compensation

Under current development plans a number of trees are earmarked for removal. However, it is encouraged that developers compensate this loss by incorporating replacement area of shrubs and trees around the site.

New trees to be planted should be of standard size and species (agreed with L.A.) should reflect those removed, where possible.

4.2 Proposals to Mitigate Impact

4.2.1 Protection of Retained Trees and Woodland

The successful retention of trees depends on the quality of the protection and the administrative procedures to ensure that the protective measures remain in place whilst there is an unacceptable risk of damage. An Outline Arboricultural Method Statement for this site is set out in Section 5.

4.2.2 Summary of Impact on Local Community

Subject to adequate precautions to protect retained individual trees as specified in the Outline Arboricultural Method Statement included in this report and compensation planting measures are taken, the development proposals should have minor arboricultural impact.

5. Outline Arboricultural Method Statement

5.1 Introduction

The Arboricultural Impact assessment in section 4 identified the impact on trees and woodlands and how that might affect the local character. The Arboricultural Method Statement sets out the management and protection details that must be implemented to secure successful tree and woodland retention. It is based on the assumption that the minimum general standards for development issues are those set out in BS5837:2012. It also draws on the author's expertise and knowledge in interpreting these standards in relation to the specific circumstances of this site.

Plans provided are for information and guidance and should only be used for dealing with tree and woodland issues. The location of all protection measures must be clarified prior to construction and clearly marked as such on the ground.

5.2 Protection Barriers

Protective barriers should be fit for purpose, BS5837:2012 section 6.2.2 sets out the default position, however it also states in 6.2.2.3 that 'where the site circumstances and associated risk do not necessitate the default position, an alternative specification should be prepared and agreed by the local planning authority'. See Appendix 2 – SEP drawing 09042 – T-01 Feb 2014 for details.

5.3 Precautions when working within the RPAs

If suitable protection fencing is carried out, working within the RPA's should not be an issue, however if works are undertaken within the RPA they must be carried out with care and the following general guidance followed (not all may be relevant).

5.3.1 General Excavation

All excavation must be carried out by hand causing the minimum disruption of roots. Exposed roots to be removed should be cut 10-20cm behind the final face of excavation. Retained roots must be protected from direct sunlight, drying out and extreme temperatures by an appropriate covering. Roots greater than 25mm should be retained where possible, roots 25 - 100mm should only be cut in exceptional circumstances. Roots over 100mm should only be cut following guidance from the arboricultural consultant.

5.3.2 Removal of Structures

Structure are any man made structure above or below ground and includes roads,

tracks and paths. Roots frequently grow adjacent and below buildings and damage can occur through disturbance. Use of hand tools may be required. Debris should be removed across existing hard standing away from the RPA and if appropriate existing below ground features can be left in place as removal will cause excessive root disturbance.

5.3.3 Installation of New Structures

New structures within RPA's are potentially damaging, these should be designed to have the minimum impact on the RPA, this may include above ground construction using piling. New surfaces such as roads, paths and car parks should be constructed to allow water and gas movement, give load spreading to avoid compaction and be constructed with little or no excavation. Provision of new services should only pass through RPA's as a final resort, if this is the case trenchless installation is the preferred method. These are engineering issue that should be guided by tree expertise.

5.3.4 Soft Landscaping

Shrubs are to be planted within RPA of retained trees.

5.4 Site Storage, Cement mixing and Washing points

All site storage areas, cement mixing and washing points for equipment and vehicles must be outside the RPA's. Where there is a risk of polluted water run off precautions must be in place to contain any spillages.

5.5 Tree and Shrub Planting (if relevant)

Any proposed Tree and shrub planting on completion should be carried out using the appropriate planting techniques for the size of plant being planted. Appropriate protection measures should be put in place to protect the plants during establishment; consideration should be given to potential threats from domestic stock, wild mammals and mechanical damage. Maintenance of all stock should be carried to ensure successful establishment, this will require replacement of losses and should continue for up to 5 years or until successful establishment is confirmed by the local authority.

5.6 Tree Protection Supervision

Tree protection cannot be reliably implemented without arboricultural input. This input varies depending on the site and resources available. An arboricultural consultant should be instructed to oversee any protective measures and management proposals outlined in this Method Statement.

It is recommended that arboricultural input is taken during the preparation period before work starts to ensure that any detail changes in the application are considered in relation to trees and woodland. A pre commencement meeting should

take place with both the arboricultural consultant and local council representative in attendance prior to commencement of works to ensure all protection measures are in place. The arboricultural consultant should visit the site during development at an interval agreed at the pre commencement meeting; this should be flexible so as to allow supervision of sensitive works.

5.7 Site Management

It is the developer's responsibility to ensure that the details of any agreed Method Statement and any subsequent amendments are fully understood by all site personal. A copy of the report should be available on site at all times.

Appendix 1

Tree Data

Table 1: BS5837 Data



TREESURVEYSCHEDULE

Client:	SEP Ltd	Site:	Havant Asda Car Park		
Date of Survey:	16/02/2014	Surveyor:	B.Gaudie, J.Ashworth	Tagged:	No

Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stem Dia. (mm)	Spread				Crown Clearnc	Category	Life Expectancy (years)	Structural Condition	Phys. Condition	Comment
						N	E	S	W						
Group A	Silver Birch and Sycamore	<i>Acer pseudoplatanus</i> <i>Betula pendula</i>	Young – mid age	Tallest approx. 15m	250					2	c	20	Congested	Some leaning	Trees currently form an effective screen for site. All trees only of moderate – poor quality. Removal of the trees highlighted will not have a negative affect

Appendix 2

Photographs of site



Photo 1. Showing area of retaining wall affected by development



Photo 2. Showing screening of site

Appendix 3

Mitigation Drawing 09042 TR 01

Showing: Protective fencing positions
Trees to be removed.