

Arboricultural Implications Assessment & Arboricultural Method Statement

Site Address:
14 Southern Road, West End,
SO30 3ER



Ref: KTML36622 - AIA & AMS



Sarah Kiss *MICFor, F.Arbor.A*

Kiss
Tree
Management
Limited



Summary

This impact assessment is to support a domestic planning application reference H/22/94087 (amended description and plans) to carry out the following works:

Two storey rear and side extensions including a new porch and patio to the rear. Alterations to fenestration. Enlargement of existing garage and store. Alterations to site frontage to include widening of the existing driveway.

One young birch tree will be removed to facilitate the alterations to the frontage and the widening of the drive: this tree is a category C young birch tree of poor form and will be replaced with a better form tree in a different location within the curtilage.

All other trees will be retained and protected to allow the development to take place with minimal impact.

An earlier tree works application T/22/93011 permitted the removal of some conifers, a poor form *Prunus pissardi* and one suppressed oak to the front – these works were unrelated to this proposal.

NB: There are trees that are protected by Tree Preservation Orders on site. ALL live parts of trees are protected, and damage may result in prosecution.

Glossary

Term	Meaning
RPA	Root Protection Area
CEZ	Construction Exclusion Zone
BS5837:2012	British Standard for trees in relation to demolition, designs and construction
BS3998:2010	British Standard: tree work recommendations
AIA	Arboricultural Impact Assessment
AMS	Arboricultural Method Statement
TPP	Tree Protection Plan

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1 Introduction

- 1.1 This arboricultural impact assessment describes the impact of the proposal and makes recommendations on:
- The overall impact of the scheme in terms of those trees that need to be removed to facilitate the proposal.
 - How this loss of asset may be mitigated.
 - How retained trees will be safeguarded to minimise any impact of the proposal.
 - Any special engineering etc. that is necessary on arboricultural grounds.

Methodology

- 1.2 The survey was done from the ground and used existing access points. Not all trees are fully accessible at the base, usually due to shrub planting. In this case, access is felt to be adequate for purpose and no facilitation works are necessary.

- 1.3 Appropriate equipment was used to take measurements judged to be accurate enough for the purpose of this report. Heights and canopy spreads are accurate to the nearest 0.5m and have only been recorded for the proposal site.

Limitations

- 1.4 This does not constitute a full condition survey of the trees on site. It provides sufficient information to allow the implementation of the proposal with minimum impact to the trees.

2 The site

- 2.1 The site is a detached domestic dwelling on a hill (Southern Road) in West End, within Eastleigh Borough Council. The dwelling has been left relatively untouched in the last few decades and is now in need of modernisation.
- 2.2 Land adjacent to the proposal is suburban, detached dwellings of similar age and construction, many improved and modernised.
- 2.3 Vehicle access is from Southern Road via an existing asphalt drive. There is additional pedestrian access further to the west via an informal, uneven foot path from a gate, also giving to Southern Road.

3 The trees

- 3.1 For detailed information, see the Tree Survey Data in Appendix A, which is attached separately.
- 3.2 Trees fall into two main categories:
- Very old, near veteran tree (two sweet chestnuts, T3 & T4) one in pollard form, one lapsed but regaining good canopy form.
 - Younger trees with landscape value – including an oak to the frontage (T2) and a poor-quality birch (T1).
- 3.3 Trees are categorised in line with BS5837:2010 Trees in Relation to Design, Demolition and Construction as follows:

A	Trees of high arboricultural value that should be retained and protected through the development. Veteran trees are automatically awarded 'A' status.
B	Retention preferable. Trees of good condition and character which are appropriate for the location and in good physiological and structural condition. These trees should

	be retained unless they will be a severe impediment to the proposal or there is an overriding public interest that warrants their removal.
C	Trees of generally lower arboricultural value by dint of character or condition. 'C' trees should not be a constraint to development.
U	Trees that should be removed on arboricultural grounds.

3.1 The detail of the trees is included at Appendix A – Tree Survey Data.

The overview is as follows:

Tree category	Trees	Total count
A	T3	1
B	T4	1
C	T1, T2	2
U	None	None
Total on site	4	4

3.2 The site has few trees, but two of high importance and a decent oak that has the potential to be a landscape feature for many decades. The birch is poor and is proposed for removal and replacement.

4 The proposal

4.1 The proposal has the following elements, listed below, with the potential impact to trees.

Proposal	Potential for impact to trees	Trees potentially impacted	Mitigation measures
Two storey rear and side extensions including a new porch and patio to the rear.	Tree roots damaged through compaction through construction activity in RPA	T2, T3, T4	Protection fencing to exclude constriction activity
Alterations to fenestration.	None – or low impact external to property	None	None needed
Enlargement of existing garage and store.	Works are all at a lower level that trees' roots are expected to be found.	None	Advise arboriculturalist if roots are found that are thought to grow from retained trees.
Alterations to site frontage to include widening of the existing driveway	Potential for damage to roots through soil level changes, path relocation and parking	T2	Hand dig where peripheral roots might be found by new path location. Protection fencing for remainder of RPA.

5 Tree impact assessment

- 5.1 The proposal will mean the loss of one tree, T1 Birch which is growing the frontage of the property. It has been categorised as a category C tree through BS5837 because of its poor form and low remaining life expectancy – it is a young tree but poorly pruned in the past which has led to weak unions and points of ingress for decay pathogens – predictable with birch. *Photo right.*



- 5.2 Potential for damage on development sites. The development of this site may have the following direct impact on the trees through:
- i) Direct damage to trees through equipment impact, unnecessary surgery to the trees opening wounds and removing live material
 - ii) Indirect damage through soil compaction (vehicle and footfall) reducing the air and water available to the tree's roots
 - iii) Severance of the roots through digging, excavation or piling in the area of the root plate
 - iv) Ongoing pruning in future to allow trees and new developments to exist side by side. For example, pruning to maintain distance of branches from rooflines, guttering or windows; reducing height of trees to maintain light levels. In this case, ongoing pruning represents a minimal issue, and retained trees are protected through a Tree Preservation Order.
 - v) Choosing the right time in the tree's growth cycle can increase or reduce the impact any works may have on the trees. No pruning of proposed on this site.
 - vi) Positive impact can be brought about where works allow trees suppressed by close growth to buildings or other trees to have more space to grow an open form, by management techniques where none have previously been employed or have been allowed to lapse, or by replacement species being more appropriate to the location than before, or by tree planning being an active and integral part of the development with suitable aftercare programmes implemented. The improvement of the soil near T2 where the path is to be lifted will reduce impact from potential peripheral root damage (highlighted green hatch on the TPP)

Indirect impact damage can occur through:

- vii) Changes in soil level. The existing soil level in the RPA is to stay the same, with the exception of slight changes for T2.

Otherwise, there are no significant changes in soil level in the areas close to other retained trees, so no special measures are required to maintain them beyond enforcing the Construction Exclusion Zone.

- 5.3 The proposal will mean the loss of the following tree: T1 Birch, category C.

5.4 Reasoning or justification for assessment.

- The site is large enough to allow the construction to take place without the need to access the RPA of retained trees except for low level activity that can be done by hand. This will be ensured by phasing the construction to use the western access, removing the need for construction activity over the RPA of T2.
- The use of the site will not change.

5.5 Mitigation. Recommend *Amelanchier arborea*, a native cherry or fruit tree (Black mulberry *Morus nigra* or Medlar *Mespilus germanica*) to enhance biodiversity.

6 Conclusion

- 6.1 In my opinion the impact of the loss of the tree on this site is low and adverse but can be temporary if mitigated by the planting of one new tree within the curtilage and preferably to the frontage where it will be of greater public amenity.
- 6.2 It is recommended that the replanting is a condition of any planning consent.
- 6.3 It is recommended that the measures laid out in the tree protection plan and arboricultural method statement (reference: 14SouthernRd-TPP &AMS-1.0) are made a condition of any planning consent.

Appendix A Tree survey data

This is also attached separately, clipped below for reference:

Tree no.	Species	Location	N,E,S,W	Ht (m)	Stem diameter (mm)	Age Class	Cat	RLC	Physiological condition	Structural condition	Preliminary Recommendations	Works for proposal	Notes
T1	Birch - <i>Betula jaquemontii</i>	Front garden	1	6	100	Y	C2	20-40	Good. Normal for species	Fair to poor. Fork at. 2m with shoot in crux. Topped at 2.2 with established regrowth	Relocate or fell and replace elsewhere	Fell	Can be relocated, but poor form probably recommends replacement
T2	Oak <i>Quercus robur</i> Tag 2540	Front garden, 6m from SW corner of property	5,4,6,3	14	590	EMa	C2,3	40+	Good	Good to fair. Slight lean north	None	Retain and protect	Rooting area can be improved by redirection of path.
T3	Sweet chestnut - <i>Castanea sativa</i>	Rear garden,	4,6,5,5	16	1020	OMa	A1, 3 veteran 'in-waiting'	40+	Good	Historic pollard, regained good form. Multiple occluded pruning wounds on stem.	None, recently dead wooded	Retain and protect	On shoulder of bank
T4	Sweet chestnut	Rear garden	0.5	6m	770	LaMa	B3	40+	Good	Pollard form recently redone.	None, resprouting in response to recent pollarding. Keep basal growth trimmed.	Retain and protect	On raised area
S=sapling, Y=first 1/4 of life expectancy, EMa = Early Mature - second quarter of life expectancy, Ma=Mature - third quarter of life expectancy, LaMa= Late Mature fourth quarter of life,													

Appendix B Tree constraints plan

Attached separately and clipped here for reference:



Appendix C Tree removal plan

Attached separately and clipped here for reference:



Appendix D Tree protection plan

Attached separately and clipped here for reference:

Tree Protection Measures
Fencing. Tree protection fencing is specified in BS5837. It must be put to purpose and exclude activity with the Root Protection Area (RPA). This proposal is low intensity so Heras panels clamped together and supported on rubber feet is felt to be sufficient. It must remain in place until the end of construction. It will be set out as the orange line shown on this TPP plan. Fencing lines must not be altered or permanently set back without the prior agreement of the consulting arboriculturist.

Areas of New Landscaping
Once soil levels are achieved, areas of new landscaping and tree planting are to be fenced off using the same tree protection fencing to avoid soil compaction. Where this is not possible, ground protection can be used as an alternative way to protect the soil.
If neither type of protection is possible, soil must be ameliorated/decompacted before planting.

Ground protection
Ground protection will be installed working from outside the RPA, always working from installed sections of ground protection, never from unmade ground. Once the ground protection is in place, the barriers (together with any supplementary barriers) will be installed, working from the ground protection.
No access to existing soil surfacing for any machinery, operatives, storage, mixing or facilities: all to be accommodated on existing hard surfacing or protected ground.

Soil level changes
There must be no changes in ground level within the RPA of any retained tree without prior consultation with the scheme arborist.

Existing path relocation
The existing path is an informal, surface laid path made of broken concrete flagstones. This is to be lifted by hand, working from the east. There is an historic tree stump that can either be left or ground out to 100mm below ground level. The levels to be backfilled no more than 150mm with a good quality topsoil with 5% Carbon Gold™ or similar biochar product mixed in.
The new path to be laid on a cellular confinement system such as BioPave™ or CellWeb™ TRP and in filled with gravel as per manufacturers' recommendations.

Figure 2 Detail specification for protective barrier

Key

- Standard scaffold poles
- Heavy gauge 100mm galvanized tube and welded mesh with panels
- Panel secured to uprights and cross-members with wire ties
- Ground level
- Uprights driven into the ground until secure (minimum depth 150mm)
- Standard scaffold clamps

Table 1: Tree Data

Tree no.	Species	Location	N.E.S.W	H (m)	Stem diameter (cm)	DBH (cm)	Age Class	Can	RLC	Physiological condition	Structural condition	Preliminary Recommendation	Works for proposal	Notes
T2	Oak Quercus robur Tg 2540	Front garden, 6m from SW corner of property	5,4,6,3	14	590	7.08	EMa	C2,3	40+	Good	Good to fair. Slight lean north	None	Retain and protect	Rooting area can be improved by redirection of path.
T3	Sweet chestnut - Castanea sativa	Rear garden,	4,6,5,5	16	1020	12.24	OMa	AL 3 Veteran 'in-waiting'	40+	Good	Historic pollard, regained good form. Multiple occluded pruning wounds on stem.	None, recently dead wooded	Retain and protect	On shoulder of bank
T4	Sweet chestnut	Rear garden	0,5	6m	770	9.24	LaMa	B3	40+	Good	Pollard form recently redone.	None, regrowing in response to recent pollarding. Keep head growth trimmed	Retain and protect	On raised area

Table 2: Tree Protection Measures

Tree no.	Species	Location	N.E.S.W	H (m)	Stem diameter (cm)	DBH (cm)	Age Class	Can	RLC	Physiological condition	Structural condition	Preliminary Recommendation	Works for proposal	Notes
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T4	Sweet chestnut	Rear garden	0,5	6m	770	9.24	LaMa	B3	40+	Good	Pollard form recently redone.	None, regrowing in response to recent pollarding. Keep head growth trimmed	Retain and protect	On raised area

Figure 3: Tree Protection Plan & Arb method statement