

# Simon Pryce Arboriculture

## Report

**Client:** Ms A Knight

**Site:** 40 Camden Square, London, NW1 9XA

**Subject:** Tree survey

**Inspection date:** 2 March 2016

**Report date:** 24 March 2016, updated 23 May 2016

**Reference:** 15/140/2

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## **I Introduction**

- 1.1 This report has been prepared on the instructions of Ms A Knight, the owner of 40 Camden Square, NW1 9XA.
- 1.2 I have been asked to inspect trees growing in the garden, to assess their condition and recommend any necessary or appropriate work and to advise on the implications of proposed building or landscaping work. This report updates the original one dated 24 March, as the proposed work has been amended and no longer includes a small basement under the right hand side of the front garden.
- 1.3 This report is based on a survey of the trees on the morning of 2 March 2016. The trees were measured, their maturity, health and structural condition assessed and each was assigned to one of the four retention categories [A,B,C,U] specified by British Standard 5837: 2012, Trees in relation to design, demolition and construction. The individual descriptions and other relevant information are contained in the attached schedule and they are shown on the attached plan, based on the topographic survey by Laser Surveys of Malvern.

## **2 Background**

### **The site**

- 2.1 The site comprises the front and rear gardens of no.40 Camden Square, which is on the SE side of the road. The rear garden is about 14m wide by 16m long, level and laid mainly to lawn with trees in planting beds round the edges.
- 2.2 The front garden is about 14m wide by 9m deep with a vehicle entrance and paved drive at the left hand side, built in 1968 according to Camden's planning records. There is a set of steps up to the front door in the centre of the house and a small lawn at the right hand side.

### **Proposed work**

- 2.3 The proposed work is shown on the drawings produced by Undercover Architecture Ltd. All the major work is within the footprint of the house, well away from any trees, although the existing drive is to be landscaped and extended slightly farther to the right. No significant work is planned for the rear garden.

### **Trees**

- 2.4 The rear garden contains several mature pear trees and a small apple growing round the edges and a small young magnolia at the far end. The fruit trees have been pruned regularly in the past, but there are no signs or records of any work since 2011. Most of the fruit trees are in reasonable condition for their ages, although some are being shaded and suppressed by a large sycamore in the rear garden of no.39 to the left (NE).
- 2.5 There is a small weeping cherry in the lawn at the right hand side of the front garden, but the most significant tree is a mature copper beech growing on a small bank between the left hand side of the drive and the boundary wall. It has developed a very one sided crown due to the proximity of a much larger ash tree in the front garden of no.39. It is a species that tolerates shade, so it has not been unduly suppressed, although the branch ends are growing out from under the ash and have been shortened periodically to prevent the tree becoming too unbalanced.

- 2.6 The local planning authority is Camden council and their web site shows that the house is in Camden Square Conservation Area. Their online records go back to 1985 and show that they have allowed various tree works, most recently pruning of the fruit trees to the rear and beech in front in 2011 and previously in 2005. No documents are available for work in 2002 and earlier, although all the applications or notices since 1998 were made by Tomlinson Tree Surgeons.
- 2.7 All the decisions indicate that the council did not object to works under the conservation area procedure, except that by 2011 the beech was subject to a tree preservation order (TPO), Camden's reference C10.

### **3 General comments**

- 3.1 British Standard 5837: 2012, Tree in relation to design, demolition and construction – Recommendations, specifies measures to avoid or minimise construction damage to trees. One of these is that root protection areas (RPAs) are established round retained trees and that no ground work takes place within them unless suitable alternative measures are taken.
- 3.2 The starting point is that a single trunked tree's RPA has an area equivalent to a circle with a radius 12 times the trunk diameter measured at 1.5m above ground. With multiple trunked trees it is based on the diameter of a single trunk that would have the same cross sectional area. Where existing site conditions or other factors indicate that root spread is asymmetrical, the shape should be adjusted, provided that reflects a soundly based arboricultural assessment of likely root distribution. The RPAs have been shown on the plan as circles in order to illustrate the areas involved and will be a reasonably accurate reflection of actual root spread, although with the beech in front that will have been restricted to some degree by the sub base of the road and the light well in front of the house.

### **4 Discussion**

#### **Tree management**

- 4.1 Most of the fruit trees to the rear have been pruned regularly in line with normal fruit tree maintenance, so are in good condition for their age. The last occasion was about five years ago and they have grown on, particularly tree 4, at the rear left, so it would be beneficial to recut them as specified in the schedule and to thin the crowns lightly. Trees 2 and 3 are poorer, partly due to being in the shade of the sycamore at no.39, but could be improved with suitable pruning.
- 4.2 In the front garden the small cherry is in good condition but was grafted onto wild cherry root stock and sucker shoots from these are growing through the crown and should be removed.
- 4.3 The copper beech is essentially sound and healthy, but is one sided due to being shaded from above and to the side by the ash. Branches shaded from above like this can become slender and carry most of the weight at the ends which makes them more susceptible to being shed in high winds. It has regrown moderately since being reduced in 2011 and it would be beneficial to shorten the longer shoots again in order to prevent the crown from becoming too extended on that side.

## **Proposed works**

- 4.4 It is not clear how the left hand side of the front garden was landscaped before the drive was laid, but the roots at the base of the copper beech spread parallel with the drive, which suggests that they had been contained until then by a retaining wall or planting bed edge, which restricted their spread while they were developing. There are some minor superficial wounds caused by vehicle wheels on the roots, but no signs that any major roots were cut in order to lay the drive, which also suggests that there were no large ones where the drive now is. This was done almost fifty years ago, there are no signs of decay and the tree is in good physiological condition, so it has evidently recovered from any damage that occurred. Also the drive is flat with no signs of any subsequent major root development underneath.
- 4.5 This area is well within the tree's potential root zone, as indicated by the RPA circle, so the work here will need to take that into account. However the points outlined above indicate that it will be possible to replace the existing drive, possibly keeping the existing sub base, and carry out some low key landscaping in the front garden without harming the tree. Some protective measures and work methods will be needed, but this is a small scale project and the tree is not unduly vulnerable.
- 4.6 The beech is next to the boundary wall with no.39 and there is some cracking, but ground level the other side is slightly higher and it does not appear to have destabilised it significantly. The gate pier has detached from the wall and leans forward, but that does not appear to be directly due to the beech.
- 4.7 Extending the drive to the right brings the edge slightly closer to the cherry but it does not impinge into the tree's RPA.

## **Tree work**

- 4.8 Any treework should be carried out in accordance with BS 3998: 2010, Recommendations for Treework, and any other relevant standards. It is essential that the contractor doing the work has appropriate third party and public liability insurance.
- 4.9 As the gardens is in a Conservation Area Camden Council must be given six weeks notice of any proposed felling or pruning of trees over 75mm diameter at 1.5m. They can allow that either by confirming in writing that they do not object or by letting the six weeks elapse without making a TPO, which is the only way they can prevent work of which they do not approve. The beech is already protected by a TPO, so a formal application would be needed but the process is the same as with conservation area notices, the differences is in the way the council deal with it. The work is all routine maintenance so it would be reasonable for the council to allow it although if they refuse TPO consent it is possible to appeal to the Secretary of State.

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## 5 Summary and conclusions

- 5.1 The trees in the rear garden have been managed regularly and are generally in good condition, although the last time they were pruned was five years ago. It would be beneficial to cut back and thin the new growth with most of the fruit trees and to thin tree 4.
- 5.2 The cherry at the front is younger and in good condition, but it would be advisable to remove the sucker shoots growing from the root stock.
- 5.3 The copper beech is one sided due to growing under the ash, but is in good health. It was reduced to prevent the crown from becoming too one sided and it would be beneficial to shorten the longer shoots that have regrown.
- 5.4 The existing drive was laid close to the beech, but that was done nearly fifty years ago, it evidently avoided the major roots and there are no signs that the tree was adversely affected or that large roots have grown back under the drive. The drive could be relaid and the area landscaped without harming the tree provided some basic measures are taken to safeguard it.
- 5.5 The new drive edge is slightly closer to the cherry but does not impinge into its RPA.
- 5.6 Once the layout is finalised and approved tree protection measures can be specified in more detail in a method statement and tree protection plan as recommended in BS5837:2012.

*Simon Pryce*

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## Photographs



Views of the base of the copper beech, showing where roots were contained and directed parallel with the drive early in the tree's life. The surface has remained flat and level suggesting that no large roots have spread under the drive since it was laid.

Site: 40 Camden Square, London, NW1 9XA

Inspection date: 2 March 2016 by Simon Pryce

Tree no.	Species	Age / vigour	Ht. m	Spread				Dia. mm	RPA rad m	RPA area m <sup>2</sup>	Crwn ht. m	Comments and recommendations	Cat
				N	S	E	W						
The trees are described in sequence starting to the rear right of the house and going round clockwise, as shown on the site plan.													
<b>rear</b>													
1	Pear <i>Pyrus</i> variety	M/N	7	3	4	3	2.5	300	3.6	41	3	Has some old pruning cut and wounds on the trunk but is sound and healthy otherwise. A pipe extending from the house is becoming ingrown and should be removed. Has been reduced in the past, probably as part of the normal pruning and grown on. <ul style="list-style-type: none"> <li>• <i>Could be improved by reducing back to the former pruning points and thinning lightly (10 - 15%), i.e. normal fruit tree pruning.</i></li> </ul>	C
2	Pear <i>Pyrus</i> variety	M/L	6	2	4	2.5	1.5	220	2.7	22	2.5	Has lost its top in the past and is one sided due to being suppressed by shade from the large sycamore in the rear garden of no.39. There is decay in the top of the trunk but it is in reasonable condition otherwise and not in a location where it would be a major hazard. <ul style="list-style-type: none"> <li>• <i>Could also be improved by pruning to give a more balanced shape and thinning lightly.</i></li> </ul>	C
3	Apple <i>Malus</i> variety	M/L	4	0	3	1	1	140	1.7	9.3	2	Also suppressed and one sided, partly due to shade from the sycamore and is being overrun by the clematis and climbing rose. <ul style="list-style-type: none"> <li>• <i>Clear out clematis, remove dead wood, reduce lightly to balance and reshape.</i></li> </ul>	C
4	Pear <i>Pyrus</i> variety	M/N	14	3.5	3.5	3.5	3.5	320 190	4.5	62	4	Large dominant tree that was reduced several years ago and is regrowing vigorously, forming a dense new crown. If left to grow on rather than being reduced it would make a good specimen, but the crown would be very dense. <ul style="list-style-type: none"> <li>• <i>Thin the crown by about 30% to favour the better shoots from the pruning points.</i></li> </ul>	B
5	Magnolia <i>Magnolia soulangeana</i>	MA/N	5	2	2	2	2	70	0.84	2.2	1.5	Leans but is a healthy young specimen. <ul style="list-style-type: none"> <li>• <i>No work needed at present.</i></li> </ul>	C
6	Pear <i>Pyrus</i> variety	M/N	6	3	3	2.5	4	320	3.8	46	2.5	Healthy specimen that was reduced like the other fruit trees and has been left for some time to grow on. Not shaded or suppressed and is one of the better specimens. <ul style="list-style-type: none"> <li>• <i>Could also be improved by reducing back to the former pruning points and thinning by 10 - 15%.</i></li> </ul>	C

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Tree no.	Species	Age / vigour	Ht. m	Spread				Dia. mm	RPA rad m	RPA area m <sup>2</sup>	Crwn ht. m	Comments and recommendations	Cat
				N	S	E	W						
rear													
7	Flowering cherry <i>Prunus</i> variety	MA/N	3	1.2	1.2	1.2	1.2	130	1.5	7.3	1	Small growing weeping variety. Like most ornamental cherries it has been grafted onto wild cherry root stock and sucker shoots from this are growing up through the crown. <ul style="list-style-type: none"> <li>Remove sucker shoots.</li> </ul>	C
8	Copper beech <i>Fagus sylvatica purpurea</i>	MA/N	13	2.5	7	3	3	700	8.4	222	6	The lower trunk is more or less upright, but the main branches lean heavily and the crown is one sided due to growing under the ash at no.39. It has been lightly reduced to make it less one sided, but is growing back and will need to be recut periodically, which will contain the spread in that direction and promote lower and inner growth. Growing on a bank next to the drive, but the larger roots have grown along it and not spread under it to any degree, possibly because there has been a low wall there in the past. There are some scars on the roots next to the drive but they are mainly superficial and relatively small. <ul style="list-style-type: none"> <li>Shorten longer shoots on the side over the garden by up to 2m and reshape.</li> </ul>	B

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### Notes

Observations are made from ground level unless stated otherwise.

Trunk diameters are measured in millimetres at 1.5m above ground or at the narrowest point between the root buttresses and branch flare in multiple trunked trees; in such cases this is indicated by [c].

Crown spreads are taken from the trunk centre to the end of the longest live branches in the directions indicated [usually the four cardinal compass points]

Crown height is the clearance under the lowest significant branches.

Tree ages are estimated as below, based on the normal life expectancy of a tree of the species concerned on the site:

Immature.	[IM]	Newly planted or self-set tree.
Young	[Y]	Young tree that is established but has not yet attained the size or form of a fully developed example of its type.
Middle aged	[MA]	Between one third and two thirds of its estimated lifespan.
Mature	[M]	Over two thirds of its estimated life span.
Over mature	[OM]	Declining and/or approaching the end of its natural lifespan.
Dying/Dead	[D]	Dead/dying or so badly decayed that it should be removed without delay if a potential threat.

Vigour is assessed on the basis of what is normal for that the species concerned as:

High	[H]
Normal	[N]
Low	[L]
Dead / dying	[D]

### Root protection areas [RPAs] - BS5837:2012

For single trunked trees these are calculated as an area equivalent to a circle with a radius 12 times the trunk diameter at 1.5m. For multiple trunked trees it is based on the diameter of a single trunk that would have the same cross sectional area at 1.5m.

Any deviation from a circular plot should take into account the following factors whilst still providing adequate protection for the roots.

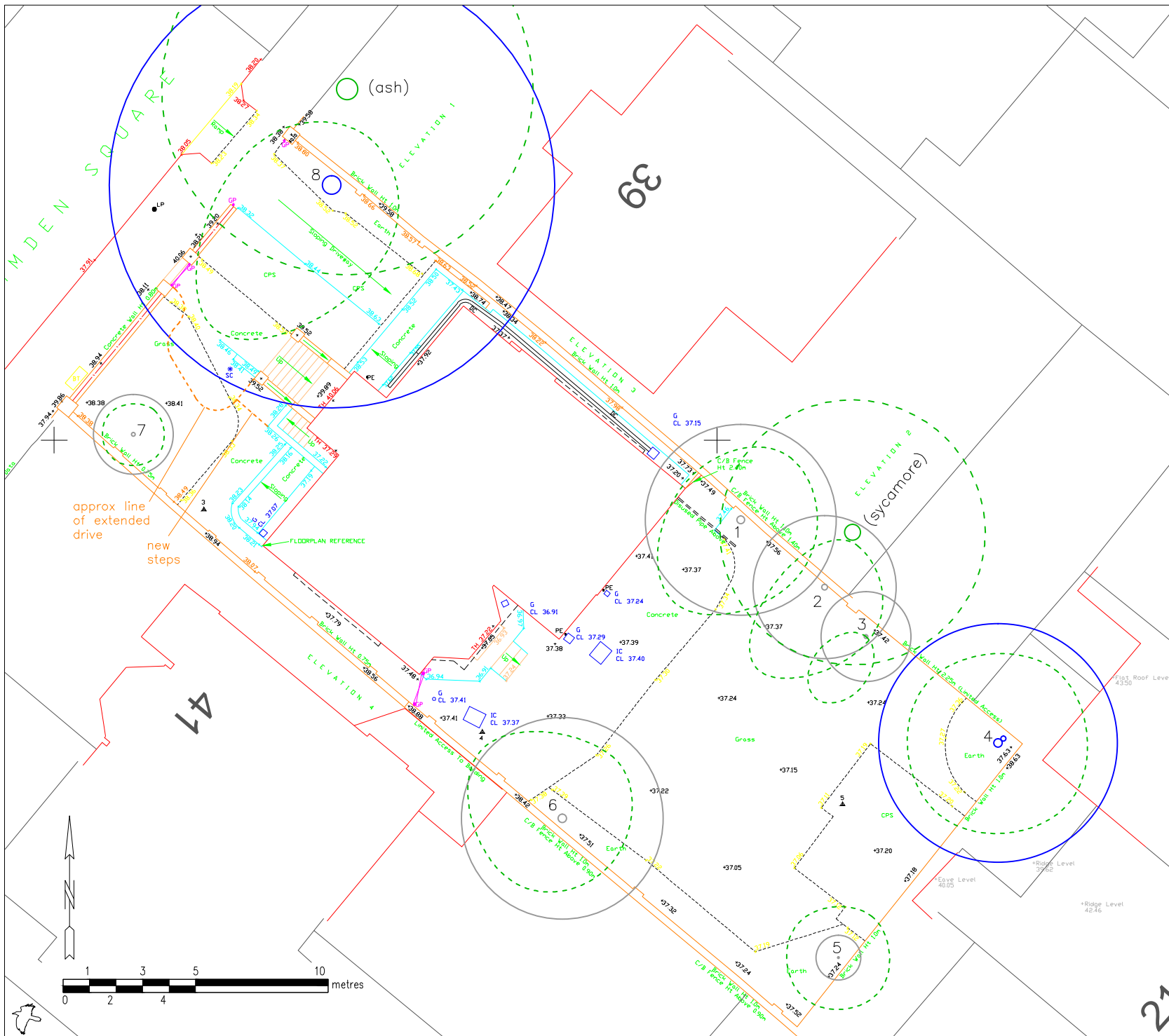
- The shape and disposition of the root system when known to be influenced by past or existing site conditions, such as the presence of roads, structures and underground services.
- Topography and drainage.
- The soil type and structure.
- The likely tolerance of the tree to root disturbance based on factors such as species, age and past management.

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**Tree categories – based on BS5837: 2012, Trees in relation to design, demolition and construction - Recommendations**

<b>Trees for removal</b>				
<b>Category and definition</b>				<b>Colour code</b>
<b>Category U</b>				<b>Red</b>
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"> <li>Trees that have a serious, irremediable structural defect, such that their early loss is expected due to collapse in the foreseeable future, including any that will become unviable after the removal of other U category trees. (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning.)</li> <li>Trees that are dead or showing signs of significant immediate and irreversible decline.</li> <li>Trees infected with pathogens significant to the health and/or safety of other trees nearby, or very low quality trees suppressing better ones nearby.</li> </ul> <p><i>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve.</i></p>			
<b>Trees for retention</b>				
<b>Category and definition</b>	<b>Criteria – sub categories</b>			<b>Colour code</b>
	<b>1 – mainly arboricultural values</b>	<b>2 – mainly landscape values</b>	<b>3 – mainly cultural / conservation values</b>	
<b>Category A</b>				
Trees of high quality with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant historical, commemorative or conservation value. (e.g. veteran trees or wood -pasture)	<b>Green</b>
<b>Category B</b>				
Trees of moderate quality with an estimated remaining life expectancy at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural benefits.	<b>Blue</b>
<b>Category C</b>				
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural benefit.	<b>Grey</b>



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Title: Tree survey	
Date: 2 March 2016	
Ref: 15/140/2	Rev: a
Scale: 1:200 at A4	
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Original drawing: Laser Surveys, Malvern, ref L7288	
Root protection areas [RPAs] are colour coded according to retention category from BS5837:2012. Trees in relation to demolition, design and construction:	
A = green	
B = blue	
C = grey	
U = red - dashed - also used to denote dead trees with no RPA	
Tree protection fencing = mid blue	
Crown spreads = mid green	