

Simon Pryce Arboriculture

Report

Client: Brosh Architects, Borehamwood

Site: Rear garden of 23 Cannon Place, Hampstead, London, NW3 1EH

Subject: Trees and proposed garden room

Inspection date: 28 August 2012

Report date: 29 August 2012

Reference: 12/062

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I Introduction

- 1.1 This report has been prepared on the instructions of Brosh Architects of Borehamwood, who are acting for Mr & Mrs Bartosik in connection with the proposal to build a garden room in the rear garden of 23 Cannon Place, Hampstead
- 1.2 I have been asked to inspect trees growing on and near the site and to prepare a report on them, as set out in British Standard 5837: 2012, Trees in relation to design, demolition and construction.
- 1.3 The site was visited and the trees inspected on 28 August 2012, accompanied by Mr Brosh. The inspections were visual and made from ground level, with no climbing or test boring.
- 1.4 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 BS5837. The individual description and other relevant information are contained in the attached schedule and it is shown on the site plans, based on an original prepared by Brosh Architects.

2 Background

The site

- 2.1 The site comprises the rear garden of 23 Cannon Place, which belongs to the ground floor flat. It is about 8m across by 12m long and extends north from the back of the house. There is a paved area about 2.5m wide at the back of the house, beyond which it steps up to the main part of the garden which is laid almost entirely to lawn.
- 2.2 There are similar sized rear gardens to each side, while just beyond the rear boundary is the flank wall of Angus House, which is on Squire's Walk.
- 2.3 The local planning authority is the London Borough of Camden and the site is in Hampstead Conservation Area.

Proposal

- 2.4 This is shown on the drawings produce by Brosh Architects and is to reduce the rear portion of the garden back to about the same level as the back of the house and to build a play room at the far end.

3 Trees

- 3.1 The only trees in the garden are a row of three at the far end, comprising sycamores at each end and a goat willow in the centre. They are possibly self set and have no signs of active management from within the property, but side branches on the far sides have been cut, generally back within the site boundary.
- 3.2 All three trees have signs of herbicide poisoning, including patches of dead bark and fluid weeping from the trunks. The willow [tree 2] is dead, but has some small dead leaves, indicating that it leafed up this spring and then died. Tree 3, to the right, is the smaller of the two sycamores and has very sparse yellowing foliage indicating that it is also in an advanced state of decline. Tree 1, the larger sycamore at the left hand end of the row has slightly healthier foliage, but is also in decline and has extensive dead bark and scorched foliage. The areas of dead bark are sunken where surrounding live trunk tissue has continued growing which, combined with the overall appearance and condition of the trees, indicates that they were first affected some time ago. There are no holes drilled in the trunks, which is a common feature of trees that have been poisoned and there are scorched leaves and signs of bleeding high on the far side of tree no.1.

- 3.3 The grass and other low vegetation round the trees is sparse, despite the fact that they have been casting little shade for some time, indicating that it has also been affected by whatever compound was used.
- 3.4 Other trees in the vicinity include a mature oak in the next garden but one to the left [west] and assorted other large broadleaved specimens in other gardens beyond and in the surrounding streets. The nearest part of Hampstead Heath is about 50m away beyond east Heath Road and is also well treed.

4 Appraisal and discussion

General comments

- 4.1 The two main functions of tree roots are 1) physical support and 2) the supply of water and nutrients from the soil. Roots will grow wherever conditions are favourable i.e. there is a suitable supply of air and water, so most tend to be in about the upper 600mm of the soil and even shallow excavation or minor level changes can be harmful. Construction near trees can also be harmful in less direct ways, such as soil compaction caused by heavy machinery and spillage of toxic materials such as diesel oil and cement.
- 4.2 British Standard 5837: 2012, Tree in relation to design, demolition and construction – Recommendations, specifies measures to avoid or minimise damage to trees that are retained on or near construction sites. One of the more important recommendations is that root protection areas [RPAs] are established round retained trees and that no ground work takes place within them. These are normally enclosed by suitable fencing such as weld mesh sections supported by scaffold poles driven into the ground.
- 4.3 The size of the RPA is based on the size of the tree concerned. The starting point is that for a single trunked tree it has an area equivalent to a circle with a radius 12 times the trunk diameter at 1.5m, although the shape and layout can be modified if appropriate, for instance where there is evidence that root spread is uneven.

Implications for this case

- 4.4 The root systems of these trees will have been restricted to some degree by the garden walls to the sides and the rear, but the RPAs have been shown as circles to illustrate the areas concerned. However that has little relevance here, as none of them has any potential. No.2 is dead and no.3 is in an advanced state of decline. No.1 is in slightly better condition, but has also been severely poisoned and has little realistic prospect of recovering fully. Tree no.2 needs to be removed without undue delay before it starts to decay and become unstable and the other two are beyond any practical remedial work. Therefore they are not a constraint on the proposed work.
- 4.5 The trees would be under the footprint of the proposed building and the associated ground level lowering would cause major root loss, so they would have to be removed in order to build it. At their present sizes they are fairly prominent in the rear garden and from the immediately adjacent ones; they can be glimpsed from a short section of Squire's Walk, but make little contribution to the wider area, which contains numerous much larger trees. If they had been healthy they could have made some more growth, but would have needed regular pruning, partly to maintain clearance from Angus House, so would have had little potential to improve. Therefore they would not have been a significant constraint on the proposal.
- 4.6 As there is evidence that the soil has also been affected any new planting in the same place would be inadvisable.

Tree work

- 4.7 Any work on the trees, in this case felling, should be carried out in accordance with BS 3998: 2010, Recommendations for Tree work, and any other relevant standards. It is essential that the contractor doing the work has appropriate third party and public liability insurance. The Arboricultural Association has a list of approved contractors, published in the Tree Services section of their web site at www.trees.org.uk or they can be contacted on 01242 522152.

Restrictions

- 4.8 As the site is in a conservation area Camden Council must normally be given six weeks notice of any proposed felling or pruning of trees over 75mm diameter at 1.5m. They can allow this either by confirming in writing that they do not object or by letting the six weeks elapse without making a tree preservation order [TPO], which is the only way they can prevent work of which they do not approve. However the willow is dead and the condition of the sycamores is too poor to warrant TPO protection.
- 4.9 However an exemption that would apply here is that any work *immediately* required to implement a proposal that has *full* planning permission is deemed to be covered by that planning permission.

5 Summary and conclusions

- 5.1 The trees are relatively young, but the willow is dead and the other two are in decline with little prospect of recovery. The available evidence indicates that they have been poisoned over an extended period and it is possible that the soil has also been affected.
- 5.2 In view of this the trees are not a constraint on the proposed building work.
- 5.3 Their contribution to the wider area is modest and, if they had been healthy they would have needed regular pruning to contain their growth, so would still not have been major constraint on the proposal.
- 5.4 Given the evidence of soil contamination any planting in the same place would be inadvisable.

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Tree no.	Species	Age / vigour	Ht. m	Spread				Dia. mm	RPA rad m	RPA area m²	Crwn ht. m	Comments and recommendations	Cat
				N	S	E	W						
The trees are described from west to east [left to right as seen from the back of the house], as shown on the site plan.													
1	Sycamore <i>Acer pseudoplatanus</i>	Y/L	11	3	5	3	5	240	3.0	28	3	Relatively young tree that has had side branches cut back on the far side, some well back this side of the boundary, otherwise there are no signs of any pruning. Has sparse foliage and the trunk has a patch of dead bark and is bleeding from several places, consistent with the effects of herbicide. The dead areas are sunken where surrounding tissue has continued to grow, indicating that the tree was first affected at least one year ago, possibly more. It is declining with little likelihood of recovery and its safe useful life is limited. • Remove.	U
2	Goat willow <i>Salix caprea</i>	D	11	2.5	4.5	3.5	2	250	2.9	26	2.5	Also bleeding from the trunk consistent, with herbicide poisoning. It has some small dead leaves indicating that it came into leaf last spring, but is now completely dead. • Remove.	U
3	Sycamore <i>Acer pseudoplatanus</i>	Y/L	10	2	3	4.5	1	150	1.8	10.2	3	Smaller than the other sycamore, has similar signs of poisoning and the foliage is very sparse and an unhealthy yellow colour indicating that it is declining rapidly with no real prospect of recovering. • Remove.	U

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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

Trees for removal				
Category and definition				Identification on plan
Category U				Dark Red
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	- 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. - Trees that are dead or showing signs of significant immediate and irreversible decline. - Trees infected with pathogens significant to the health and/or safety of other trees nearby, or very low quality trees suppressing better ones nearby. <i>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve.</i>			
Trees for retention				
Category and definition	Criteria – sub categories			Identification on plan
	1 – mainly arboricultural values	2 – mainly landscape values	3 – mainly cultural / conservation values	
Category A				
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)	Light green
Category 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.	Mid blue
Category C				
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.	Grey

