Planning Ahead

Article for essentialARB issue 9

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Jeremy Barrell is one of the most successful arboriculturists in the UK, with an international reputation to match. As he prepares to speak at the ISA Conference in Montreal next month, he takes time off to continue his series analysing the state of UK arboriculture with a look at the role of the arboriculturist in the planning system. “The future for Arboriculture is very bright,” he says “but it won’t happen until the Profession gets a firm grip on some basic issues. What could be more important than describing the job we do; the fact it hasn’t been done yet shows we still have a long way to go.”

The Profession of Arboriculture in the UK is exceptionally well developed compared to other countries of the world but compare it with other professions such as medicine or surveying and it is still floundering in adolescence. It is weak from fragmentation; AA, ISA and ICF as competing lead bodies and factionalisation based on diverse interests all serve to disrupt professional development rather than enhance it. In the face of such a maelstrom, it is easy to lose hope and think there will never be a way out of this mess. Contrary to this doom-mongering mindset, I believe that Arboriculture is in the ascendancy. Environmental pressures are increasing almost on a daily basis and we have very powerful national legislation that sets us apart and above every other country in the world. Trees are gaining an undeniable momentum that is thrusting tree managers (arboriculturists) towards the top of the ‘most wanted professional’ list. However, if individuals are to take full advantage of this emerging sentiment, the Profession needs to respond with systems and procedures to match this demand.

In my experience, the biggest growth area in arboriculture is in planning. This is driven by the ambitious government targets for new housing and urban regeneration in the context of green belt policy restricting expansion into the countryside. There is huge pressure to use space in a sustainable way and that means taking proper account of trees as well as the many other considerations. This burgeoning demand for arboricultural skills has outpaced the capacity of the Profession to provide the framework for best practice. The result is absolute confusion over who should be doing what, where and how. I believe it is a fundamental requirement for the development of any profession to describe these issues of best practice. It is time for the Arboricultural Profession to start taking this seriously.

Firewood is all many trees will be good for if Arboriculture does not get to grips with detailing best practice on development sites!

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Turning to the planning environment, it is very easy for tree enthusiasts to get carried away with how important trees are and lose touch with the reality of the situation. Passionate but inexperienced college kids and bearded tree huggers in sandals who fight tooth and nail to save every tree are stereotypes that do not fit the reality. In the planning world, the Case Planning Officer is King/Queen and trees are just one of many competing issues to be assessed. Their job is to assign proper weight to all these issues in the context of government guidance and the information before them. In the wider scheme of things, pressure to meet housing density or parking targets may mean that even the best trees have to go and sacrifices have to be made. Compromise is the uncomfortable reality in this world and trees are not always the winners.

So what is the arboriculturist's role in the context this rather harsh and confrontational environment? Interestingly, although arboriculturist's can be from either side of the fence as council tree officers or independent consultants, their broad objectives are very similar. In the planning system, everything focuses around planning officers and the arboriculturist's prime role is to assist them in making a decision. The key word here is 'assist' and four important subsidiary requirements flow from it. The first is to simplify complex information. Trees and their interactions with people is a complex subject, which is why there are specialists, arboriculturists, to deal with it.

Planning officers and the other professionals in the planning system who make decisions are not tree experts. If tree information is to be helpful, the arboriculturist must simplify its very complex nature into a form that can be easily interpreted by those with no tree expertise. The second is to clearly define relative merits. This is an environment of compromise where judgements have to be made based on relative merits. It is not an ideal world where every tree can be kept so arboriculturists must provide clear and unambiguous assessments of which are the best and worst. The third is to negotiate appropriate replacements for lost trees. Compromises are unavoidable and that may mean valuable trees are lost. Perhaps the most important role of the arboriculturist is to ensure that these losses are adequately compensated for with new planting and that there is minimal degrade of the wider amenity resource. The fourth is to ensure that trees agreed for retention are successfully retained. The greatest risk to trees identified for retention is during the development process. This can only be done successfully if arboriculturists specify and supervise tree protective measures.

With these broad objectives in mind, the detail of the arboriculturist's role is quite different at the various stage within the planning process. There are three very distinct phases of arboricultural input; pre-design, design and post-design. Each requires very different skills, presentation, techniques and procedures as follows:

Pre-design phase

Whilst some councils will offer preliminary advice to developers through informal consultations or more formal development briefs, this is unusual. More often, developers prepare the detail of a proposal without any formal or prolonged contact. The arboriculturist's initial role focuses around collecting tree data to assist in layout design by identifying which trees are worthy of being kept. This would normally be done by consultants although exceptionally, tree officers, sometimes do it. It follows that although tree officers usually see the end results of this exercise, they are rarely actively involved in it or have regular experience of doing it.

In principle, when carrying out the pre-design tree survey, it is not logical or possible to reliably assess trees based on what might happen with future layouts because of the unlimited permutations that exist. A pre-design tree survey can only assess trees based on what is there at the time of inspection. It is purely a means of providing a relative indication of which trees are the best and

When arboriculturists get it right, there can be immense benefits to the community.

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which are the worst so that planners have a clear idea about which ones should stay and which ones can go, i.e. which trees should be a material constraint. The main purpose of the survey is to provide guidance on this; the arboriculturist's role is to distil the complexities of tree assessment into a form that non-tree experts can use and understand. The overriding focus of this exercise is to establish whether each tree is worthy of being a material constraint or not. This is not an easy task and there will always be difficulties in the detail. However, there can be no escaping the simplicity of what is required; can the tree go - yes or no? Arboriculturists are the tree experts and it is their responsibility to make this judgement.

Guidance on establishing the shading/dominance/proximity zone

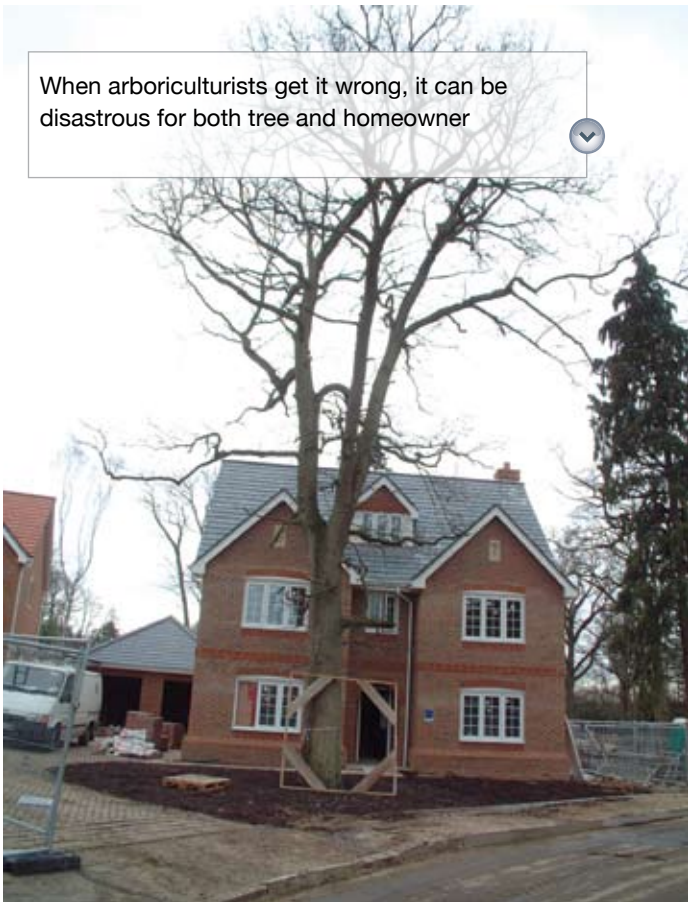
1. Introduction: Future pressure to fell or severely prune trees that may result in a significant impact on local amenity is an issue that should be a material consideration in assessing a development proposal. These pressures can arise if properties (specifically the living areas that include gardens as well as buildings) are placed too close to trees. The specific issues that arise relating to proximity include room for future growth, excessive shading, inconvenience from tree debris and anxiety caused by tree size. There is no single reference that specifically deals with these issues in relation to trees but there are a number of sources that provide an insight into how the various elements should be reviewed. However, unlike the protective zone calculation, these issues do not lend themselves to a purely objective appraisal and the final assessment will be a subjective judgement based on the skill and experience of the assessor.

2. Allowances for future branch spread growth: Ideally, if a tree is to be successfully retained, it should have sufficient space to mature to its full size potential without the need for continual remedial works. It is normal and expected for trees to require maintenance from time to time but proximities that would require heavy annual pruning should be avoided. How much space is required is very much a matter of judgement based on the potential of the species in the location and the potential of that particular tree in terms of its existing crown structure. It is often useful to look at similar trees in the locality to gain an insight into these aspects.

3. Daylight and sunlight: Future occupiers often have high expectations for levels of daylight to buildings and sunlight to garden areas. Detailed guidance on what levels of light are considered acceptable can be found in Building Research Establishment (BRE) Report 209 (1991): Site layout planning for daylight and sunlight: a guide to good practice. BRE, Garston, Watford WD2 7JR, and British Standards Institution (1992) BS 8206 Part II: Code of practice for daylighting. BSI, Milton Keynes. These are not specifically written for use with trees but the principles can be reasonably transferred to assessing the impact of trees. Factors such as species, crown density, orientation in relation to the sun and the number of trees in groups are all relevant in assessing whether the restrictions to light levels will be tolerable.

4. Proximity and degree of overbearing: Large trees very close to occupied buildings and well used garden areas can cause occupants anxiety because they are excessively overbearing. This would only normally materialise as a valid reason to fell or prune the tree if there was a safety issue through some structural or stability issue. However, it would be prudent to avoid obviously inappropriate relationships by identifying areas where this would be an issue.

5. Drawing in the constraints and the limitations they impose: This zone is intended to provide guidance on areas that are unsuitable for occupied buildings or well used garden areas such as patios. The judgment should be made taking account of future growth, reasonable light requirements and the degree of overbearing of each tree. The above discussions clearly indicate that the guidance on the extent of this zone is advisory only and it would be difficult to rigidly fix it in a precise way. The guidance should be offered on a preliminary basis on the understanding that further arboricultural consultation should be sought once a layout has been drafted.



When arboriculturists get it wrong, it can be disastrous for both tree and homeowner

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Having made this judgement, the next task is to present this information in a way that is useful to the layout designers who, remember, are not tree experts and need simple useable guidance. Effective layout design relies on plan-based presentation derived from the collected tree data. Only trees that have been categorised as worthy of retention should translate into layout constraints. These should be added to the original site survey to provide a constraints plan with supporting explanatory notes on how it should be interpreted. Layout designers can then try to fit their development around these constraints with sufficient information take to full account of the important trees. It is helpful to visually separate tree categories on plans by colour coding either the tree number or its crown spread.

The first and most obvious constraint that trees impose on land use is how much space they need to survive the development activity. BS 5837 is a useful starting point for establishing the root protection zone each tree needs to minimise any risk of decline through damage to the rooting environment. No significant disturbance should occur within it and a high level of care is needed with any activities that are authorised. This is the most restrictive tree constraint and there is limited scope for encroachment into it. This zone should be clearly illustrated on the constraints plan in colour or with distinctive hatching.

The second and more subtle constraint is how much space trees need to be successfully retained beyond the development activity when the pressures of residential occupation come to bear. Excessive shading and dominance creates real pressure to remove or severely prune trees after development. The arboriculturist should consider these issues during the site visit and advise on the constraints they impose in addition to the root protection zone. Factors such as crown density, future growth potential, orientation in relation to the sun and the number of trees in groups should be considered to arrive at a second, less restrictive, constraints zone. This is more subjective than the roots zone constraints and should take account of the available guidance on sunlight issues in the context of the specific circumstances for each tree. This constraints zone would not normally be suitable for occupied buildings but uninhabited structures and hard surfacing may be acceptable within it. It should be clearly illustrated in addition to the root protection zone on the constraints plan in colour or with distinctive hatching. See insert for further suggestions on how to establish this zone and plan extract illustrating a suggested annotation.

The emerging role for arboriculturists; negotiating significant new trees is often more beneficial to local amenity than struggling to retain poor quality individuals

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Design phase

In stark contrast to pre-design, which is about the arboriculturist working in relative isolation, the design phase is about communication and negotiation with all the other parties involved in the planning process. The emphasis switches to skills of negotiation and dispute resolution where arboriculturists on both sides jostle the interests of trees with the other competing pressures that want the space they occupy. This is where the resolve of all parties is tested and the hard negotiating takes place. It involves two stages that can be conveniently separated as pre-submission and post-submission of the planning application.

Pre-submission, the developer's arboriculturist's interaction is primarily with the rest of the development team to find a layout that optimises the developer's requirements within the tree constraints ready for submission to the council. This starts with the layout designers reviewing the constraints and trying to fit in their desired development without an impact on trees. They will produce a preliminary layout that must be referred to the arboriculturist for further comment and fine tuning. If the constraints are respected, then the layout is ready for submission without any revision. However, if important trees will be lost, then the options are either to revise the layout or to propose mitigating measures that compensate for the losses. Once a final layout has been agreed, the arboriculturist's task is to prepare an arboricultural impact appraisal report to accompany the submission. This should provide the full tree information and detail what the impact of the development proposal will be on trees. If good trees will be lost, then an important part of that report is to justify those losses and explain how it is intended to compensate for any lost amenity.

Post-submission, the developer's arboriculturist's interaction is primarily with the council to add clarification where requested and try to resolve areas of disagreement. Upon submission, the council appraise the information in parallel with public consultation to arrive at a decision. On the council side, their arboriculturist will review the submitted information and check its accuracy on both factual content and subjective assessments. Obviously, if there is full agreement and no important trees are to be lost, the planning case officer is advised that there are no contentious tree issues. However, if there is a conflict between the two sides, then further discussions are necessary to see if a compromise can be achieved.

In the majority of development situations, the ideal of keeping all the trees is just not feasible or in line with government guidance so achieving a tree-rich compromise is probably the best that can be expected. The survey identifies trees that should be a material constraint but that does not mean they have to be kept at all costs. It simply means they should be given appropriate weight in the overall deliberations about what is an appropriate change in land use. If a layout is acceptable in every other planning respect except that it means the loss of a good tree, then it may be entirely appropriate for the planning officer to decide to sacrifice the tree for the greater good. The benefit of identifying that tree as a material constraint is that it then allows arboriculturists to make a very strong case for a significant compensation package for its loss. This could be a number of semi-mature trees planted in better locations that will result in a significant amenity gain in the wider context. My experience is that it is frequently possible to achieve a compromise that results in a better future tree situation than already exists. I believe that one of the most influential roles an arboriculturist has is in the use of this material constraint categorisation as a bargaining tool to secure a future amenity gain.

How can anyone with a car this good be wrong?

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Post-design phase

The granting of a formal planning consent by the council signals a distinct shift of emphasis for the arboriculturist from negotiation to advising on tree protection and management during the construction and completion phases. Once that decision has been made by the planners and a layout agreed, all the trees, no matter how they were categorised by whatever system, revert to one simple status - trees to be retained. It is no longer relevant how they were originally categorised, be it A or D or 1 or 4; they are all now one category by default and the arboriculturist's survey role is over. It is now time to move on to specifying what needs to be done to protect those trees and how that is implemented during the construction process.

Whilst different situations may justify different levels of detail, the principles of how these issues are managed remain the same. In every case, a plan will be necessary along with some explanation. Where the issues are limited, a simple letter with specifications for fencing and tree works may be sufficient. However, where the issues are more complex, then a more formal document with detailed explanations and specifications will probably be more appropriate. Whatever the choice, the arboriculturist's role is to prepare the document and ensure that it is sufficient to maximise the chances of successful tree retention. Developers are traditionally very weak at effectively controlling all these issues because they have never really had to bother that much in the past. In this context, I see project management of the tree issues on behalf of the developer as an evolving role for the arboriculturist as the modern development scenario unfolds.

On a day to day basis, my experience is that arboricultural method statements are a very useful tool where lots of issues need to be drawn together in one document to facilitate easier enforcement where developers deviate from what was agreed. Arboricultural supervision by consultants is of limited use and cannot be relied on as a means of ensuring tree protection agreements are honoured by developers. Pre-commencement site meetings between all the parties are an essential pre-requisite to successfully retaining trees. Fencing must be in place before any work starts on site including demolition. I find it is crucially important to only use scaffold braced 2.4m robust fencing that cannot be moved. My overwhelming experience is that lesser specification chestnut paling fencing does not work and should be removed from the development vocabulary. Retaining groups of trees is generally a more successful long term strategy than trying to keep isolated individuals. However, most interestingly, by far the most significant factor in the success of retaining trees is the enthusiasm and dedication of the council tree officer.

Strong tree officers are the key to successful tree retention irrespective of the calibre of the developer's consultant.

Drawing to a conclusion, my experience is that the role of arboriculturists varies greatly at different stages in the planning system. There is widespread confusion about what should be done where and there probably is no simple solution. I have tried to describe how we have approached these problems and outline the solutions that have stood the test of our intense daily workplace. However, they are not the only way to do things and others may have evolved equally as good or better solutions. Therein lays a fundamentally important issue facing Arboriculture and the development of our Profession; there is no credible standardised approach to best practice at the moment.

There are those who would argue that the forthcoming version of BS 5837 is the right vehicle for such guidance and I would have been inclined to agree in principle if I had not seen how the BS system works. However, I now have some serious reservations that the concept of drawing in representatives from allied professions on to the review body, however well intended, is the best way to effectively deal with the detail of issues that are so specialised. How can engineers and landscape architects and builders, who, it should be noted, significantly outnumber the arboriculturists, be expected to get to grips with these matters? The simple answer is they cannot. So the question has to be asked, will such an arrangement serve the best interests of Arboriculture? Clearly, these are complex issues and I believe a credible and sustainable solution can only be achieved by an approach based on working parties with members who are expert in this field. It remains to be seen whether the 5837 review group are able to deliver on this issue or whether we should be looking to our professional bodies to lead the way.

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