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Starting off the series of best practice topics, Mark Wadey joins Jeremy in setting out the pros and cons of site supervision and controlling tree protection on development sites. Mark is well placed to contribute to a balanced view because before joining Barrell Treecare two years ago, he was a tree officer at Poole for seven years. A significant part of his work was dealing with trees in the planning process and trying to grapple with how to ensure what was agreed in the pre-consent discussions was actually carried out on site. In common with many local authorities, Poole did not have the resources to fully supervise every site and inevitably, developers often took advantage of that weakness. As a 'gamekeeper turned poacher', Mark lends his local authority expertise to Jeremy's consultancy experience to explain how they are turning the tide in favour of trees.

As all of us that work with development sites know from bitter experience, it sounds so simple to agree that trees will be kept and yet it is so difficult to make it work. Numerous unforeseen problems and vested interests seem to thwart even the very best intentions present at the start of a project. To compound it all, the most trivial mistakes can ruin all the careful discussions and agreements and effort and good will; a little trench here or a slight spillage there - all accidents of course - can send even the best laid plans into a fatal mortality spiral, quickly followed by the trees!! This is a hostile place where satisfaction from getting it right can be a rare feeling. Faced with such daunting obstacles, it is not surprising that those who care for trees just feel like giving up sometimes. Even the toughest tree officers and consultants have morale failures in the face of this onslaught, so is there any hope of progress?

As with any problem, a good starting point for finding a solution is to identify what is going wrong and why. Well, the problem is pretty obvious; the best trees are identified for retention in the planning stage of development and are then killed during the implementation stage. I am sure we are all familiar with how the killing occurs; physical damage from machines, cutting of roots for service trenches, excavation of soil for surfacing and structures, degrade of the rooting environment by compaction and spillages, etc. Of course, the list is endless and if you care about trees, it gets a bit depressing to dwell on it for too long; sort of like a murder inquiry for one of your friends!!



Mark Wadey believes tree officers make great consultants because they can see both sides of the development equation.







'Why' is a bit more difficult to pinpoint and in practice it is probably a combination of pressures and conflicting interests from a multitude of directions. Central to the whole process is the developer who naturally places a high priority on keeping employees alive, meeting deadlines and making a profit. It is not surprising that trees fall some way down such a high-powered list and are seen as the soft option when conflicts arise. On paper, consultants can oversee tree protection but they are paid by the developer and being a 'whistle-blower' on the boss can get a little tricky for even the most professionally upstanding individuals! And finally we have the tree officers; the most influential cogs in the process but also the most under resourced and often poorly supported. No matter what their responsibilities are on paper, it is a practical impossibility for them to supervise every site all of the time. So is it all lost?

Well, not really, because although the failures are common and demoralising, there are plenty of successes to take heart from and the more we can publicise how they are achieved, the more chance of others seeing if it can work for them too. This is the essence of best practice in the real world; trying things out, dropping what fails and singing about what works. As Jeremy's introduction stressed, we are not saying we have got it completely right or there are not other ways to succeed. However, we do believe it is useful to focus on what works for us and results in successful tree retention. It is also interesting to note that one of the main threads that runs through our work is the benefit of good communication between all the parties. Success is completely dependent on close co-operation between us as consultants, the developers and the tree officers; teamwork seems to pay big dividends for all the parties - and the trees as well!

In this context, here is as summary of what we see as emerging best practice and the benefits it has to offer:

• Realistic tree retention: In the UK, development space is always at a premium and trees are just one of many interests competing for it. It is far cry from the tree huggers' paradise where all trees can be kept with a comfortable safety buffer. The harsh reality is only the best can be retained and efforts to keep second rate trees often serve to dilute scarce resources and compromise all the trees. It sounds too simple but focusing resources towards trees where the odds are stacked in favour of successful retention is a very useful strategy in this high pressure environment. Obvious sacrifices are isolated individuals with changes on more than two sides; the intense pressures in the frenzy of construction significantly reduces their chances of making it to the end. In contrast, retaining groups provides an edge buffer to the central trees and even if individuals are

accidentally compromised, the space is secure and the feature is sustainable. Two simple guidelines at the onset of planning that make a lot of difference at the end.

• Planning conditions: Once trees have been identified for retention, the main mechanism for implementing this in practice is through the use of planning conditions and their enforcement. The government sets out clear guidance on appropriate tests for effective conditions as: they must be necessary, relevant to planning, relevant to the development to be permitted, enforceable, precise and reasonable in all other respects. Our experience is that weakly worded conditions allow developers to circumnavigate the requirements and not honour the pledges they made in the pre-consent negotiations. In contrast, comprehensive conditions are a great help because they clearly set out what is required and make it difficult for developers to wriggle out of their responsibilities.



A pre-commencement meeting to make sure the fencing was installed before the diggers got on site would have deprived us of this irony!







Isolated trees are unlikely to survive the development process.

Retaining individual trees with disturbance on all sides is a high risk strategy because it is unlikely they will survive.











High specification ply fencing fixed to a robust wooden framework is effective at protecting trees



Poole Borough Council, amongst others, have pioneered these detailed conditions with a typical wording as follows:

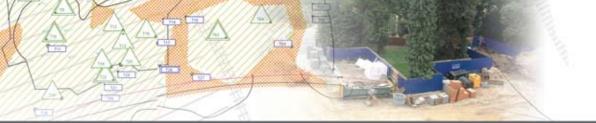
'An arboricultural method statement prepared by an arboricultural consultant holding a nationally recognised arboricultural qualification providing comprehensive details of construction works in relation to trees shall be submitted to, and approved in writing by, the Local Planning Authority prior to the commencement of the development. All works shall subsequently be carried out in strict accordance with the approved details. More specifically, the method statement must provide the following: etc'

With various sub-clauses dealing with the specific items relevant to each site. There have been cries from the fainthearted that it is going too far to ask for the work to be done by qualified consultants or to include provisions for site supervision. However, these bold moves have not been challenged to date, which sets these local authorities at the forefront of best practice.

• Pre-commencement site meetings: most of the serious damage to trees we see occurs at the beginning of the development, sometimes before the local authority even know any site activity has started. This risk can be significantly reduced by writing a planning condition that stipulates a pre-commencement site meeting. All relevant parties need to be at the meeting including the tree officer, the consultant and the construction site manager.

Other relevant attendees may include engineers if those works may affect trees and the tree contractor if felling and pruning is required. At the meeting all parties should discuss protective measures as consented and how they will be implemented.

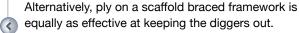
Protective fencing should be marked out in accordance with approved plans and methods of building close to trees should be clearly understood by all parties involved. Any changes to approved plans or protective measures can also be agreed at the meeting to ensure that all working procedures are as practical as possible for those actually carrying out the work. Once all procedures have been agreed, a letter must be sent to all parties detailing the issues discussed at the meeting and any actions that should be carried out before the main construction activity starts. This is a very important meeting for tree officers because, if they are under resourced, a relatively small amount of time spent at this point can result in huge benefits from time saved as the development progresses. We find that forceful and positive tree officers in these early face-to-face meetings work wonders in focusing the attention of developers on getting the protection right and cutting out all the anxiety that arises if they don't.







- Robust tree protection: In practical terms, robust tree protection installed at the beginning where it works without significantly impeding the construction process is the best of way of successfully retaining trees. It is all very simple; chestnut paling does not work under any circumstances and no tree condition that refers to it can be considered credible in the modern day development scenario. Substantial braced posts, either wood or scaffold, supporting a rigid and robust framework on which a ply or heras panel covering can be fixed is easy to install, survives for the duration of the development and can withstand most accidental impacts. Whilst 2.4m height is usually sufficient, if there is a risk of damage from cranes or tall vehicles, it can be easily extended upwards for specific trees. For access over protective zones, there are a range of options for load-spreading ground protection from heavy duty ply to railway sleepers to custom temporary bridges that can be easily specified and sourced as credible protection. We believe that making sure all the agreed measures are in place before any activity starts is by far the most important part of the process of successfully retaining trees.
- Site supervision: In an ideal world, tree officers would supervise each site and ensure that planning conditions are observed. But the reality is they are often resource-starved so the next best option is to 'delegate' that function to private consultants hired by the developer. It is now common place to have this written into a condition, which specifies the tree protection is regularly inspected and all activities that may impact on trees are supervised. In practical terms, depending on the complexities the site; the frequency of visits would normally be fortnightly to begin with and monthly once the site is up and running smoothly. A follow up letter after each visit to all relevant parties summing up what was seen and any solutions agreed provides the essential paper trail in the event that it all goes wrong. Digital photos provide a secure way to record the site findings, which can be emailed to the local authority to keep them fully informed. A possible progression of this is the use of



digicams on very sensitive sites to provide a continual record of protective measures throughout development, although we are not aware of its use to date. Of course, supervision raises the negative criticisms of "easy money" for consultants and "how can they be trusted" that can only be dealt with over time by building up confidence and trust through responsible reporting by the consultants. On the positive side, retained consultants are on hand quickly in the event of problems and are obviously highly motivated to make sure all goes well if their reputation is to remain intact. Our experience is that supervision in the context of a developer with a commitment towards retaining trees and a strong tree officer nearly always results in successful tree retention. However, where the developer does not care or the tree officer is weak, there will always be a high risk of failure and no amount of commitment or supervision from a consultant will change that.



Paling fencing never has been effective at preventing encroachment and is not suitable for the modern development scenario.









In addition to offering a means of more tree successful tree retention, there are other significant benefits from observing these best practice guidelines. Obviously, consultants benefit from the increased workload arising from supervision. More importantly, tree officers can greatly reduce their time input into each site, focusing it where it will have the greatest impact at the pre-commencement meeting. But, perhaps most relevant of all, the document trail that arises from the records of the site visits actually provides a crucial safety net for the developer. In our increasingly litigious society, it is only a matter of time before a tree will cause severe injury or damage soon after a development is occupied and the developer is the subject of a negligence claim. Supervision visits and an audit trail will provide them with a means of repudiating claims by demonstrating they took all reasonable and practicable measures to meet their duty of care.

Without doubt there is no simple solution to such a complex set of conflicting priorities and the points set out above only scratch the surface of what can be done. Our experience is that a co-ordinated approach with close co-operation between consultants and tree officers can be a very effective means of successfully retaining trees. However, whilst consultants can greatly assist the process, the pressure to initiate that input must come from the local authority. It is up to tree officers to ensure that planning conditions are written in a way that provides them

with the framework for delivering effective tree retention and incorporates consultants into the process. It is then up to them to insist on the pre-commencement site meeting to ensure the agreed protection is in place early. Finally, none of this will work smoothly without the goodwill of the developer, the last member of the team and the financier of the whole process!



Braced fencing is important because it is difficult to imagine the pressures that have to be withstood when writing the specification in the comfort of the office!