Report from the

Trees and Development Conference
17 June 2026
Stirling University, Scotland

Prepared by Deanne Brettle, University of Birmingham and the conference planning committee July 2026

Future Woodlands Scotland

Institute of Chartered Foresters

Trees & Design Action Group

Introduction

The aim of this conference was to demonstrate the development process from the initial brief to delivery on site and long-term aftercare. It was divided into stages with presentations from some of the key players involved at each stage followed by a discussion, led by a protagonist, with the audience which represented the community. The conference was opened with a clear message - there are shared concerns that new developments fall short of ambitions or are not sufficiently ambitious when it comes to delivering the 3:30:300 rule - 3 mature trees in view from a window, 30% canopy cover and 300 meters to a quality green space[1]. The focus of the conference was on delivery: how we turn growing awareness of the value of nature – for climate, biodiversity, health and wellbeing – into successful action on the ground. A diverse audience were in attendance (Figure 1).

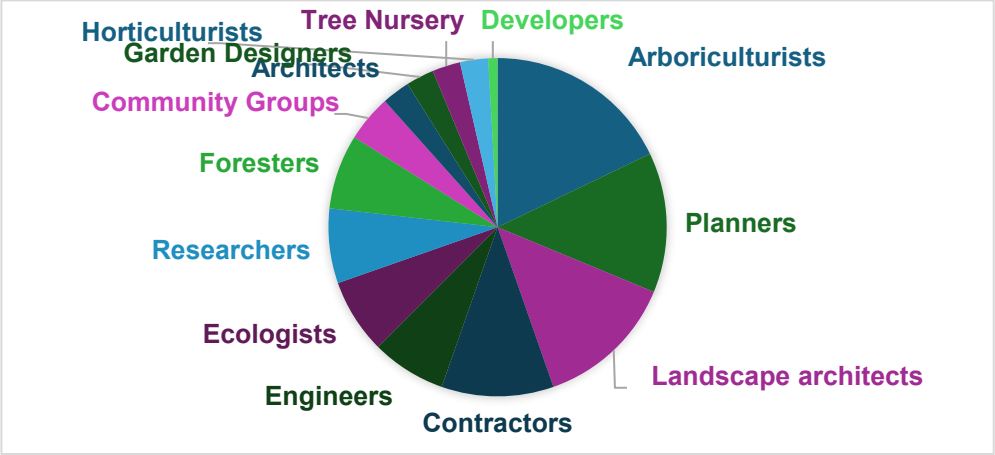

Figure 1. (Estimated) responses by audience to a straw poll at the start in response to the question "Who is in the audience today?"

Figure 2. The 'Imaginary site'. Illustration by New Practice part of Civic

The printed conference programme - given to all delegates on arrival - shared details of an 'imaginary' site which provided a common reference point for the day (Figure 2). It shows a realistic development scenario and was used to explore how decisions affect trees and nature over time. The site is of sufficient size to provide about 65 homes, of which 25% should be affordable in line with National Planning Framework 4, with green space, play space and trees.

[1] The 3-30-300 rule or principle was proposed by Cecil Konijnendijk, not as a prescription but to inspire greater ambition for integrating trees and greening into our towns and cities. https://nbsi.eu/330300-principle/

Session 1: Starting right – the brief, the site, the design team.

Notes from the panel

Client/Developer, Planning Consultant, Arboriculture Consultant, Ecologist, and Architect/Project Lead

There is much to consider in terms of the client expectations, but ultimately economics does drive decision making – homes need to be insurable, mortgageable and sold within a price range that is amenable to the area. A cultural shift is emerging: "**some developers see themselves as selling homes rather than building houses**." This reframing creates an opportunity to drive meaningful change within the industry. Developers who are willing to engage in exemplar projects require constructive support from engineers and the design and development team - support that enables creativity and removes barriers rather than introducing new obstacles. The policy landscape for new developments is interconnected and often ambiguous. Likewise political dynamics inevitably affect development processes and cannot be avoided, but they can be understood and navigated to support better outcomes, underscoring the need for early input from a planning consultant.

Early engagement in the development cycle by ecologists and arboriculturists generates timely baseline information and can prevent potentially costly and disappointing changes being required further in the development cycle. An ecologist for example can undertake an ecological appraisal (different to an ecological assessment) demarcating where there are protected species constraints and invasive species present (Figure 3). Ideally ecologists should be engaged at least 12 months ahead of planning submission, as this affords opportunities for seasonal surveys. Communication is key – timely, valid and concise. Topography surveys overlaid with tree measurements provide useful information to architects, engineers and anyone likely to impact trees above or below ground during the construction process. A British Standard BS5837:2012 survey completed of a new site development includes retention categories and subcategories - categorising the quality and not just quantity of existing trees. Tree canopy is measured at four cardinal points to identify potential impacts above ground and potential conflicts with infrastructure, but the canopy spread of trees needs to be considered both now and in the future. There are not robust metrics to project tree canopy growth, so the advice and guidance of the arboriculturist based on experience is therefore key. Root Protection Area (RPA) calculated as 12x diameter of a tree's stem and measured at 1.5m from ground level should be seen as a design tool only, as roots invariably spread much further and can be

Figure 3. Further details added to the 'imaginary' site including trees with Tree Preservation Orders, root protection areas and demarcated protected species areas. Illustration by New Practice part of Civic

shaped by impediments to growth caused by ground conditions and/or solid structures. The use of tree root radar scanning provides more accurate data (depending on soil texture) to map the distribution of tree roots but requires expert application.

Codesigned developments benefit from a holistic approach but it is important to monitor, so that designs are not "diluted" along the way. A "**systems thinking approach**" was advocated, which considers the broader environmental context of a site - a "**porous red boundary line and removal of lines" between the built and the natural environment**". Creating a narrative of the space assists communication of the vision, e.g. explaining the characteristics of veteran trees and subsequent ecosystem benefits, or the reasoning behind new tree species selection; "**we need to be good ancestors**" and consider "**what legacy we want to leave**" (Figure 4). `

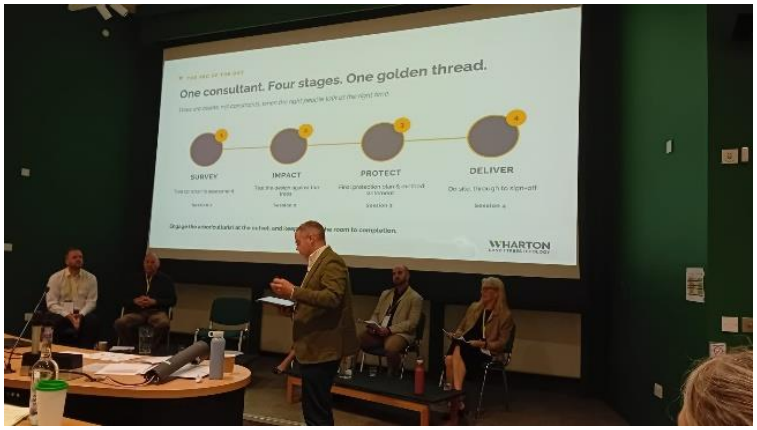

Figure 4 One Consultant. Four Stages. One golden thread

Notes from the audience discussion (taking the role of the community)
Pushback came that whilst the theory of this interdisciplinary team is ideal, **how can we get developers to understand the need, so it becomes "the norm"**. A solution was for exemplar projects that explain the process not just the outcome, normalising the holistic approach.

There was support for the idea that during the selling process, the **potential new homeowners ought to be given all information about the landscaping and green infrastructure** including seasonal changes e.g. there will be leaf litter, there will be shade from trees, but these also bring benefits – leaf litter for compost, shade for cooling.

Nature changes spatially and over time e.g. roots grow - a Root Protection Area (RPA) protects the roots of today not in the future. This was answered by way of an assurance that tree roots yet to grow may adapt to the prevailing ground conditions, but this of course depends on species, age of the tree etc. - older mature trees do not usually adapt well to disturbance. However, there are innovative construction methods such as the use of screw piles and/or cantilevered design which allow sensitive construction within an RPA if carried out in collaboration with the experts from arboriculture, architecture and engineering. For example, the arboriculture consultant demonstrated the use of cranes on site to lift materials over the canopies from roadside thereby avoiding any damage to tree canopies or RPAs.

It is important that developments incorporate or introduce good quality, plant-ready soil for residents to create their own biodiverse habits in gardens – as opposed to "**building rubble covered by a shallow layer of topsoil and turf!".**

Key takeaway

Bringing all relevant professions into the process early in the design process gives the best chance of delivering successful outcomes. Excluding even one of the key professionals increases the risk of avoidable, compounded, and costly problems later. Strong results come from collaboration, not post-design mitigation or compensation.

Session 2: Concept design – making the buildings, landscape and trees work together in harmony.

Notes from the panel

Architect/Project Lead, Utilities and Services, Engineer for SuDS, Landscape Architect, Arboriculture Consultant, and Client/Developer

Figure 5 Arbitect and arbitecture - designing with trees required knowledge of trees

An architect who knows how to design with trees and has an appreciation of arboriculture will make for a better-informed design alongside expert input from the project arboriculturist - the terms "**arbitect**" and "**arbitecture**" were introduced. Research has shown that "**architects know less than they thought they did about trees**". Utilities need to be considered in the early stages of design, and collaboration and compromise is key. Planning for an environmental clerk of works to be present especially for "sensitive" areas is important to ensure the 'method statement' is followed. A challenge was raised later in the day as to whether a third party can effectively deliver a key specialist's method statement e.g. can an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) be delivered by someone other than the arboriculture consultant who wrote them - the response was it is better to have the arboriculture consultant present during the construction phase too.

Utilities on developments are having to keep pace with changing demands in relation to how energy is consumed e.g. EV power, solar, with hydrogen fuel on the horizon – utility infrastructure needs to be futureproof. For example, currently utilities corridors are usually at 1.5m wide, but it is now preferable to have these at 2.5m wide to integrate EV charging points and Air Source Heat Pump infrastructure etc. The dynamics of water management of a site are also changing, e.g. rainfall capture and storage for flood management and use in stewardship of the environment. It was explained that **there are different 'run off characteristics' depending on the topography of the site** and these must be considered when designing water management.

Notes from the audience discussion (taking the role of the community)

Someone immediately spotted one of the trees with a Tree Preservation Order (TPO) was missing and spoke out about this. A response was that a TPO'd tree, does not come with immunity as felling can be justified e.g. a TPO might be assigned to a tree when it was in its prime, but its health has since decreased, and the tree is now a health and safety concern to the public.

Someone asked would you have considered not removing any trees? A big round of applause was given to someone passionately talking about removal of TPO'd trees "**there has been no progress in 37 years** … [in this design (Figure 5)] "**we are slaves to the ellipsis" – the oval design.**

There was a discussion about how we change the narrative from trees as constraints to trees as assets and opportunities. **Can we value trees with software like iTree and use it to demonstrate how the value of tree increases with age/size? Can we demonstrate that property prices also increase with the presence of maturing trees?**

A question was asked as to whether the team had considered improving the resilience of existing trees on the site; this should not be forgotten.

Soil quality was mentioned again; compacted soil with little aeration is a very poor outcome for trees and their longevity in the landscape.

Someone asked where the 25% social housing was in the site plan – the reply was it is integrated not segregated. Another wanted to know if there was sufficient car parking planned or if a guidance for car parking had been considered in the design.

The community was discussed and the fact that not everyone feels positively about trees - what about allergies and seasonal honeydew excreted by aphids associated with lime trees which can result in sticky deposits on parked vehicles, laundry and external surfaces.

Key takeaway
Communication is essential, yet the means of achieving it effectively are not always straightforward. Disingenuous or performative community engagement offers little benefit to any party and can undermine trust in the process.

Session 3: Planning-ready design without dilution

Notes from the panel

Architect/Project Lead, Landscape Architect, Arboriculture Consultant, Planning Authority, and Tree Protection Officer

The planning process requires 'give and take', it is iterative, it is a 'balancing act' (Figure 6). However, asking the right questions at the planning stage, bridges the gap to delivery. There are many reports required and not all get read in their entirety - consider brevity but with substance and have a professional summary. Ensure reports are written by the relevant competent professional but **encourage co-development of reports** e.g. an arboricultural consultant codevelops the Tree Protection Plan with the utilities / contractor and / or a landscape architect codevelops the planting plan with the arboriculturist and maintenance contractor to assist with tree species choice, preparation of the planting and establishment brief and post maintenance plan, contract supervision and quality control.

Figure 6 The master plan. Illustration by New Practice part of Civic

The visibility of key plans/drawings is critical to the design team and contractors' e.g. TPP[2], AMS[3] and relevant 'Site Guidance Notes' posted in the site office. Key messages are important and differing communications styles can be considered e.g. maps, posters and videos.

It is important to understand that planning applications are reviewed considering a wider urban forest and not just a development scale is important, **small urban tree canopy losses here and there, can cumulate in large canopy losses across different scales** (Figure 7).

There is power in 'Key performance indicators' (KPIs) but there were calls for KPIs to be more considered e.g. should a KPI be the number of planning applications processed, or the number of planning applications submitted with sufficient, robust information.

Notes from the audience discussion (taking the role of the community)

There was support for the call to **"protect the trees in the ugly areas**". There was discussion about giving a voice to unheard vulnerable communities and those that

[2] Tree Protection Plan

[3] Arboricultural Method Statement

“do not know they need a voice”. There was a discussion around ‘Local Place Plans’ which have had mixed uptake - often driven by whether the lead person has relevant skills / training.

Who should be first on the scene when the green light is given? The answer was the arboriculturist, as they prepare the TPP and specify the tree protection measures which are set out in the AMS which form an operational site document.

There was a question about canopy cover assessment of a new development and whether it is possible to project canopy cover to estimate when the canopy will return to a baseline or increase. There was a discussion about when monitoring should happen – should this be 10-, 20-, 30-years post completion? There was a discussion that ambitions for 30% canopy cover might drive tree species selection to favour trees of a large/massive stature at maturity over tree species with a small stature at maturity. With the points being raised that i) large/massive canopy trees need to be carefully planned for, otherwise they might later require extensive management due to the nearby growing environment, and ii) sometimes there is a place for trees with small stature at maturity, especially in terms of opportunities for citizen stewardship.

Figure 7 A tree officer has to look at the wider scale considering the whole urban forest.

Key takeaways

Plant fewer trees at final spacing and do it well. **Do things once and do them well.**

Session 4: From design to reality – delivering the design intent on site

Notes from the panel

Clerk of Works, Landscape Architect, Landscape Contractor, Arboriculture Consultant

Initial “Toolbox Talks” are essential prior to project commencement with all the key personnel on site. Spot checks should be just that - dates should not be given in advance. **The Clerk of Works is a crucial role; however, it is not always understood.**

However, in the context of trees and plants the Clerk of Works will only be as helpful as the information they are given (Figure 8). For example, a clear planting plan, drawings and tree planting specification that details all the elements including the irrigation, and tree support as well as the species of trees. Information again should be concise and visual. When attention to detail is undertaken there are better plant / tree health outcomes and when things do not go to plan a Clerk of Work can mediate between stakeholders.

Landscape can be value engineered as overall budgets for a development become more stretched overtime - unforeseen circumstances diminish budgets which

might not be ring-fenced for landscape. There are not the same quality checks completed on landscape as there are on buildings and **landscape is sometimes seen as a "nice to have"**.

Figure 8. An informed clerk of works is integral for success.

Contractors tasked with maintenance of the land as well as the grey/blue or the appointed landscape contractors, have a wealth of experience of both people and plants post-delivery and **know what works well**, and can help identify gaps in design e.g. compost bins for leaf fall, litter bins, probable desire lines. The costs of maintaining a new development site often can increase over time as the plants mature. "**If a budget for maintenance is including in the development budget, you will get a generational exemplar site, but if the maintenance budget is to come from the management service charge the exemplar project will almost certainly not succeed in the long run**". Scheduling **"business as usual maintenance now is putting us back"** things are changing, the climate is changing, there needs to be resilience built-in e.g. to have capacity to start irrigation earlier in a dry spring.

Notes from the audience discussion (taking the role of the community)

A poll of the audience members who identified as arboriculturists, planners and ecologists revealed 100% agreed that the Mitigation Hierarchy - **Avoid** > **Minimise** > **Reduce/Mitigate** > **Compensate -** was in their experience NOT applied from the outset as advised by Scottish Government biodiversity guidance on securing positive biodiversity outcomes in developments. There was discussion around the requirements for and challenges of watering plants and trees. One solution of planting smaller trees which require less water was proposed. The importance of community engagement in planting and stewardship was discussed. Community is key, pressing ahead without community support increases likelihood of things going wrong. The topic of "**voice and who gets heard the most"** was mentioned again – the **person(s) with the loudest voice is not always the person in most need**. Working with artists to support community engagement has had success – should we do it more?

There was a discussion around whether a Clerk of Work (CoW) should be expected to be passed the responsibility for overseeing tree protection and tree planting, there was talk of having an Arboriculture CoW, but it was questioned how that would differ to having an Arboriculture Consultant present? Maybe the Arboriculture Consultant is the Arboriculture CoW, and the solution is to ensure the Arboriculture Consultant is engaged (and paid) to the end of the project sign off.

There was agreement, it is more cost effective to get the right team in place and do things once, than to do things multiple times without success.

There was support for **landscape architects to codevelop planting plans with arboriculture consultants** to determine tree species selection, the planting brief and methodology and perhaps supervision of the planting contract – this does happen in many practices – in-house arboriculturists. There was support for bringing in whoever is best for the project, especially support for **bringing in the maintenance contractor earlier.**

Once again, discussions turned to the importance of soil - soil stripping and mishandling - "**most sites fail because of poor soil"**. Should we consider soil restoration? Using innovative engineering and construction techniques can preserve existing soils on a site.

Session 5: What changes on Monday morning?

Key lessons and reflections from the day

"We've talked a lot about trees at the heart of planning, but should it be nature at the heart of planning?"

Budgets / costs / and bottom lines will continue to be a barrier, so we need to consider trees are assets and not constraints.

Figure 9 Final session - reflections from the day.

We need to influence 'procurement' and communicate and advocate for the importance of "**right team for the right place**". Getting the right team requires investment up front, not just in terms of finance but in terms of human resource and expertise. Engaging the maintenance contractor early in the development cycle should not be overlooked. A point was raised that perhaps **we need to rely more on developers and design team leads to engage and fund the right people at the right time as Scottish Government do not have the resources to ensure personnel with key skillsets are deployed at the right times to enable enforcement and expedite full compliance with NPF4 policies** - there was scepticism too that they would be resource in the near future either.

"**We can't afford to keep getting it wrong, its wasteful, biodiversity does not have time for our mistakes, climates are changing, health and wellbeing concerns are very real and potentially worsening, so there is much hanging on the success of a development or place other than the building footprint itself**."

With every change in contractor, the initial vision for a site dilutes and changes. A proposed "**solution is to have a site custodian".** The question was asked "What/when does a developer see is the endpoint? Who are the long-term custodians? **How can the longer term master plan be protected?**"

The value of having the right team including the arboriculturist, ecologist and landscape architect engaged through to project completion is clear and can save costs in the long run.

We should not forget to look beyond the immediate site, for example the ancient woodland near the imaginary site, can be a positively opened to the community but with negative consequences if not done so in a collaborative way. A professionally tailored woodland management plan is essential for positive outcomes and perhaps the use of Forest Schools would enable positive links with communities. Forest Schools could also be a root into education in communities about living closer to trees and nature.

Change is not going to happen overnight, there is change that will come from ground swell - our own actors calling for change, making change, wanting change - as well as from government policy. We can all do our bit to influence politics, communicating to influencers what is working well and what we want more of, including joined up policies.

There was challenge as to whether the emerging Scottish Biodiversity Metric should be made statutory as in England.

There was discussion around whether trees have friends? Do trees have rights?

"We need to get away from tick box exercises."

Artificial Intelligence (AI) was discussed and need to embrace it.

Existing guidance of best practice is good, but it needs underpinning to **"close the performance gap".**

A challenge was raised as to whether translocation of habitats works. The response was that species have been translocated over millennia – they can and do adapt, however it is important to "embed avoidance mitigation design".

Post conference delegate feedback

A survey circulated by the Institute of Chartered Foresters after the conference showed that the majority of participants found it useful and appreciated the format as it demonstrated the complexity of players and decision making required. The venue was "**spectacular**" (Figure 10). Several suggestions were also made for issues that merit further exploration.

Figure 10 The beautiful grounds of the University of Stirling, the venue of the Trees and Development Conference 2026

Deanne Brettle acknowledges support to produce this report by the University of Birmingham via Quality-related Research (QR) Funding

Further reading and resources

Arbitecture
Tree-Building Relationships: The Adventure of Arbitecture (2026). Dr Gary Winn, New Generation Publishing. E-book.

Arboricultural Association
- Application of Biosecurity in Arboriculture. Free e-book: Biosecurity best practice Arb Association
- Arboricultural Training and Events – a varied programme of over 100 courses and events each year. Most courses and events are open to anyone, though members enjoy substantial discounts.
  Arboricultural Association - Arb Knowledge Course Detail

Barrell Treecare (free download)
12 Site Guidance Notes (SGN) produced to help manage trees effectively on development sites. Each SGN deals with specific issues that can arise during development. Free to download
Manual for managing trees on development sites v3 Site Guidance Notes 1 to 12

British Standards Institute (charged)
- BS5837:2012 Trees in relation to design demolition and construction (under review)
- BS8545:2014 Trees from nursery to independence in the landscape
- BS3998:2010 Tree work - recommendations

Forest Research (free download)
- Ecological Site Classification (ESC) - a web-based decision support system to help forest managers and planners select tree species that are ecologically suited to particular sites, instead of selecting a species and trying to modify the site to suit.
- Pest and disease resources – specific tree and woodland problems.
  Forest Research Pests and Diseases
- TreeAlert - the online reporting tool for tree pests and diseases, managed by Forest Research with funding from Defra, Forestry Commission, Scottish Forestry and Welsh Government. It is a valuable aid, allowing you to quickly report any suspect findings of tree pests and diseases which are of concern in Britain.

Maps
- National Soil Map of Scotland
- Google Maps – aerial and street views of site

Nature Scot
- Developing with Nature guidance. This has been published in support of policy 3(c) of National Planning Framework 4. An illustrated version of this guidance is currently in preparation. Free to download.
  Developing with Nature guidance | NatureScot
- NatureScot Ancient Woodland Inventory

Treeconomics (free download)

- Treeconomics benefits of trees poster
  The Benefits of Trees Infographic

Trees and Design Action Group (free downloads) – www.tdag.org.uk

- Trees Planning and Development A Guide for Delivery: Section One: Creating financial, environmental and social value into the future. Trees and Design Action Group
- Trees Planning and Development A Guide for Delivery Section Two: Planning the urban forest: how to develop a Strategy that delivers (TDAG)
- Tree Species Selection for Green Infrastructure (TDAG)
- Trees in Hard Landscapes a Guide for Delivery (TDAG)
- First Steps in Trees and new Developments (TDAG)
- First Steps in Canopy cover guides (TDAG)
  - https://www.tdag.org.uk/first-steps-in-urban-noise.html
  - https://www.tdag.org.uk/first-steps-in-urban-water.html
  - https://www.tdag.org.uk/first-steps-in-urban-heat.html
  - https://www.tdag.org.uk/first-steps-in-urban-air-quality.html

See also:

- TDAG growing case study library: https://www.tdag.org.uk/casestudies.html
- Past seminars: https://www.tdag.org.uk/past-events.html

Various

- Plant Health Scotland
- Scotland's Environment Web
- Land Information Search

Woodland Trust

- Woodland Trust : recognising and categorising ancient and other veteran trees (2024)
- Woodland Trust Ancient Tree Inventory (includes access to hybrid historical maps)