

PUBLIC REALM TREE PLANTING AND PROTECTION

CHECKLIST FOR HIGHWAY ENGINEERS

This checklist is part of the [Staffordshire Developers and Public Bodies Toolkit for Designing, Planting and Managing Public Realm Trees](#). It is to be used as an aide-mémoire to help put the principles presented in the Toolkit into practice and ensure that new developments contribute towards the successful inclusion of trees in the public realm.

Ahead and independently of any project initiation, do you:

- Ensure a good communication process is in place for planned highway works (e.g. re-asphalting, partial or full refurbishments, etc.) to allow for potential associated opportunities for tree-related enhancements or planting to be planned accordingly?
- Periodically seek input from a tree specialist (and use the advice provided in the [Toolkit](#)) to review internal guidelines related to the inclusion of newly planted and existing trees in adopted highways.
- Consider latest standards, recommended good practice and available technical solutions to secure conflict-free integration of trees?

At project initiation, do you:

- Ensure adequate tree and soil expertise will be available when needed?
- Seek input from a tree specialist to specify in the project brief how trees are expected to contribute to the delivery of the project vision?
- Ensure the public realm and highways quality audit methodology factors trees, including (where existing trees are present) a BS 5837:2012 compliant tree survey and tree constraint plan?
- Plan for the right underground surveys to be conducted at the right time to ensure a high degree of accuracy (surveys from project initiation should be compliant with Level D of PAS 128:2014 and surveys for the design phase should be compliant with Level A or B of PAS 128:2014)?
- Plan to budget five year aftercare for newly planted trees as part of the capital investment sums?

While developing a design, do you:

Explore opportunities to make space for trees i.e.:

- In retrofit situations, review carriageway and car parking allocations or consider planting (or enhancement to the rooting environment of existing trees) on the road side of the kerb where footway width is too limited?
- Consider using or retrofitting a common utility enclosure or shared trench?

Communicate clearly to the design team and tree specialist:

- Which trees have been earmarked for retention, emphasising the need to work jointly to achieve the production of a realistic tree protection plan?
- The vertical and horizontal clearance to be achieved at project completion and over time?
- The load-bearing capacity required for surfaces over existing or future tree-rooting areas?
- Any feedback from the maintenance team on ease of cleaning and durability of different tree surface opening treatments in different context?
- The need for tree species selection and specifications to consider suitability to identified physical and ecological constraints ahead of any other considerations (e.g. aesthetics)?
- Project deadlines to be met to enable timely tree specification and ordering, including a site visit to the nursery to tag the trees?

Seek design and tree specialist advice on the contribution trees can make to:

- Clutter-free traffic calming?
- The success of shared space and pedestrian priority areas?
- Enhancing the cycling environment?
- The success of a public transport improvement project?

Coordinate with the drainage engineer to:

- Explore opportunities to use trees and their growing environment for attenuating, storing and/or cleaning surface water runoffs?
- Ensure that enough water can reach the root ball of the tree and provide drainage to prevent excess water?

For implementation, do you:

- Ensure that, for projects featuring trees to be retained, the tree protection plan and associated arboricultural method statement is reviewed and fully updated as soon as construction details become available?
- Ensure that ahead of commencement of any works, the construction team (especially the construction site supervisor) is briefed by the tree specialist on tree protection measures and the installation process of any load bearing rooting media (such as raft systems and crate systems to alleviate root compaction) that may be part of the scheme?
- Secure ongoing on-site arboricultural supervision as needed?