



12/11/2025

BS5837 2012
Arboricultural impact assessment



Client: Townscape Homes LTD

Site: Kensington Court, Newport.

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Instruction

Following an email instruction from the client, I have been commissioned to provide a supporting document to cover tree concerns on site – an arboricultural impact assessment.

I hold the ABC Awards Technical Certification in Arboriculture (AA Tech Cert) and am familiar and experienced with the British Standard 5837 2012 and working with it on development sites. I have over 15 year's practical experience surrounding the planning process and trees during my work as an arboricultural consultant and contractor. My aim is to bring my knowledge and experiences into the report which then aims to help the planning process.

By utilising the guidelines of BS 5837 2012, data is taken of tree features, such as specie, height, stem diameter measured at 1.5m above ground level (to give an even sized stem taper) for single stemmed trees or an average stem diameter for multi stemmed trees. Further data is collected to assess the trees suitability for the location which uses physiological and structural assessments to give a final opinion of the trees overall condition. Further considerations are given to the trees such as rooting area and any required arboricultural management work prior to development.

Experience in working with trees is vital when providing information in relation to a BS5837 Report. BS5837 2012 recommends the use of an arboriculturalist in order to understand the trees needs on site and the trees current and future environment. In this case the arboriculturalist is James Pinder. The arboriculturalist needs to be able work out the extent of root mass occupying the area and how placing the footprint of a building near it may change the dynamics of the tree's surroundings. Once a building is placed next to trees it is also important to understand the long-term effects of aerodynamic changes on trees retained and any rain shadow created by the new structure may adjust water availability to trees. Should the development be seen to have a detrimental or significant nature to the trees then changes may be required to the buildings architecture or size to ensure minimal impact on a tree. In certain cases, the tree or trees may need to be removed.

By using the data gathered to compile the report and assessing a tree's needs, an opinion can then be made on it is best to protect the trees from the development process. Root protection areas are calculated and these need to be adhered to when installing a protection at the extremity of the RPA. Under no circumstances should an RPA be lessened unless a specific method and reason is being used. All guidance contained within this report should be followed to ensure that the whole or part of the proposed development is not jeopardised.

Site Location/descriptions

- The site is located at the north end of Oakland's Road, Newport.
- Oakland's wood (NCC owned) lies to the west – significant recent clearance work undertaken by NCC to remove fire damaged trees and also ash trees in decline from ash die-back.
- Private housing in an elevated position to the east.
- Private housing to the south and south-west of the site.
- The site was a former NCC owned day center which closed in 2016. At present the site closed to the public but trespassing does occur. On site there were self-set trees, scrub growth, the main tree stock as covered by the Treescene BS5837 2012 tree report, fire damaged main building and access roads/car park. The building outline and hard tarmac surfaces along with patios and paths can be seen in the image below.
- Recent on site minor scrub vegetation has taken place and all hard surface areas scraped clean and stored away from tree rooting areas in the top car park area.
- There has already been some tree work carried out on site that was agreed by NCC.



Definitions

BS 5837 2012 (Trees in relation to construction) was revised in 2012 and now supersedes the previous 1991 & 2005 editions.

Within the newer BS many definitions are given so the professional arboriculturists are able to give an indication to planners and architects so that a common understanding of trees and how building new structures may affect the health and support of trees can be given.

Arboriculturist

A person who through relevant training, qualifications and experience in the arboricultural world is able to form an opinion on how trees may be affected through development processes.

Competent person

A person, who has had training and experience relevant to the matter in hand and is able to recognize whether it is safe to proceed with a specific site process.

Structure

Man-made object, such as a building, carriageway, path, wall, services and built or excavated earthworks.

Root protection area (RPA)

A site layout design tool that enables a pictorial representation of trees required rooting area. This area must be protected to ensure the survival of trees.

Tree constraints plan (TCP)

A clear plan diagram showing tree locations, crown spreads and rooting areas. This allows the arboriculturist to demonstrate areas where trees will affect a proposal by tree volume, height or shade.

Construction exclusion zone (CEZ)

An area clearly marked both on site and on a site plan. This area must have no construction operations carried out within.

Tree protection plan (TPP)

A scale drawing that shows tree locations, rooting areas and fencing locations on site.

Arboricultural implications assessment (AIA)

An assessment made by the arborist to identify, evaluate and possibly mitigate effects of construction process on trees.

Arboricultural method statement (AMS)

A written or toolbox talk applied method of ensuring the contractor (construction) can implement the design adjacent to existing trees.

Services

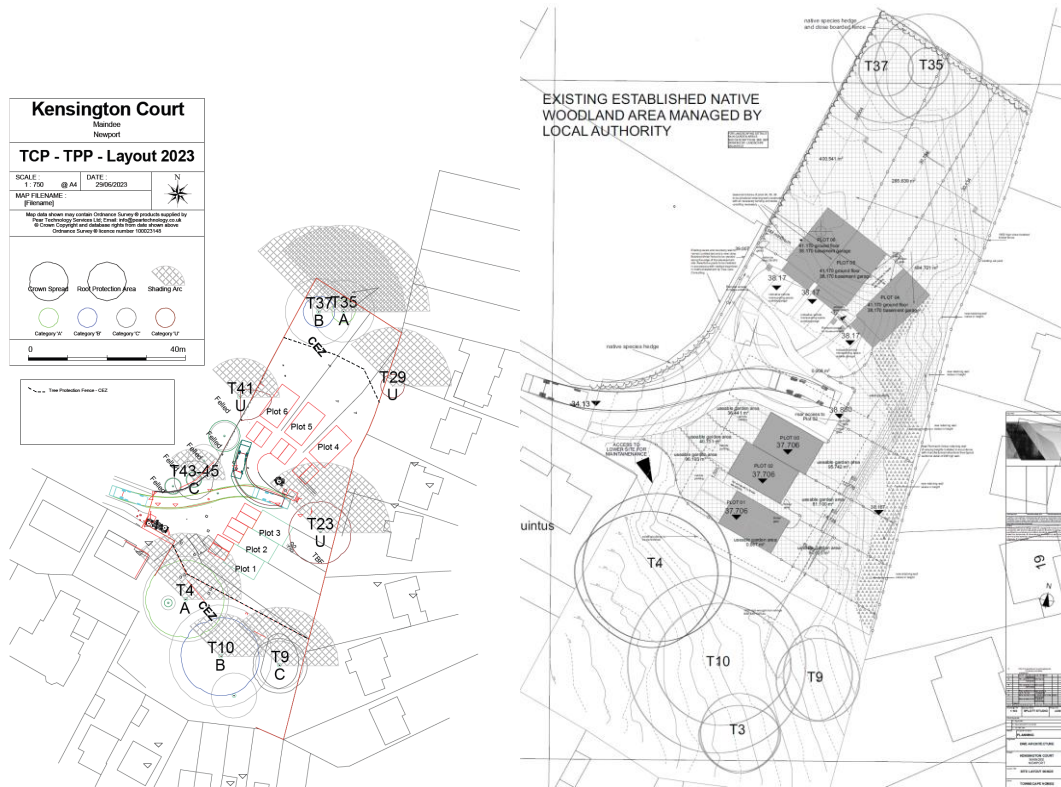
Above or below ground pipe work, wire or ducting construction that could affect trees crowns or their roots or rooting areas.

Special engineering

Designing of a structure with the physiological requirements of trees as the primary concern.

Tree AIA

The site plan below shows the trees covered in this AIA and the plan also shows the reduced number of six plots for the 2023 submission in relation to trees on site and their rooting areas. Trees featured are the main and most dominant trees on site. Each trees individual details are to be found in the site BS5837 tree survey document provided by Treescene. I do however, cover them briefly again here.



2023 layout above

2025 layout above

Original site layouts have been refused and further adjustments made in 2025 to the site layout to leave what is shown above in relation to trees. I have worked with the architect and site owner to help design a layout that does the following:

1. Plots do not compromise reattained tree rooting areas on site as defined by BS5837 2012.
2. Design lay out ensures plots are not placed directly into tree shade areas – all plots have sun more of the day than not.
3. Plots meet the recommended garden dimensions.
4. Minimal disruption on site occurs by utilising areas that have to be demolished/removed such as hard surfaces and existing buildings and are away for trees and rooting areas.
5. Make recommendation to remove potential hazards resulting from tree hazards, pest & disease and mechanical weakness but retain as many trees on site as possible.

T4 Oak. An A Cat tree with no major defects. There is dead wood in the crown (easily removed). The tree has been historically buried during construction of the derelict day centre across the north root plate up to the main stem by NCC. The Theoretical RPA of T4 extends under the garden edge of plot 1 on plan but in reality, the RPA is several metres below the current ground surface. Current ground surface is patio. This hard surface will be removed to become garden and with no detriment to T4 north rooting area as no deep excavation is taking place that could affect roots in original soil levels. Tree protection fencing will be required however to protect the trees stem rooting area and crown. Shade will affect plot 1 southern garden strip at mid-day but morning and afternoon sun will reach front and rear gardens. Tree is located at a much lower level so shade fall is greatly reduced to the site. Placed within CEZ during development.

T9 Cherry. A C Cat tree in reasonable condition at the time of assessment. No issues in relation to development. Tree protection will be required during the development phase. My suggestion is that this is done by installing garden boundary fences at an early stage. On-going assessment is recommended. Placed within CEZ during development.

T10 Copper beech. A B category tree. Dead wood to be removed. RPA and shade away from plot 1. Tree is located at a much lower level so shade fall is greatly reduced. Placed within CEZ during development.

T23 Oak. A U Cat tree recommended for removal/replacement. 50%+ crown is dead leaving an unbalanced and poor form tree. Tree can be replaced in final landscaping without contravening TAN 5, TAN 10 and GP5 due to the tree being in the dying/dangerous exemption of the TPO. Due to removal, there are no trees issues relating to the site.

T29 Western red cedar. Off-site U Cat private tree high on the bank. Tree recommended for removal due to poor condition. Site owner to hold discussion with tree owner regarding removal to reduce liability to site from falling trees. Replacement should be offered with a more suitable species for the location such as field maple or Turkish hazel.

T35 Coastal redwood. An A Cat tree. Rooting area outside of plot 8 and with buffer possible. Plot 8 is located in the existing hard surface car park area. And AWB may be required for lifting the existing hard surface edge closest to the tree before installing tree protection fencing again. Remove any dead wood. Shade fall goes to the west and north of this tree and does not affect plot 8. The tree is close to plot 8 but is adjacent to the gable end and therefore minimises influence on the plot visually from within. Placed within CEZ during development.

T27 Coastal redwood. A B Cat tree. The tree has stem bark damage. There is a query regarding internal stem decay noted in the BS5837 tree report. This tree can be assessed using Picus 3 sonic tomography and PD500 microdrill to establish if decay is present or not. This information can be made known to any potential residents of plot 8. Rooting area outside of plot 8 and with buffer possible. Plot 8 is located in the existing hard surface car park area. And AWB may be required for lifting the existing hard surface edge closest to the tree before installing tree protection fencing again. Remove any dead wood. Shade fall goes to the west and north of this tree and does not affect plot 8. Placed within CEZ during development.

T41 Common beech – Felled by NCC. A U Cat tree that was council owned and stood in Oakland's wood. RPA was not affected as the tree is located behind a stone perimeter wall. There was however a large and low phototropic limb extending east over the site and extensive stem damage on the woodland side. The tree was heavily suppressed by the woodland causing crown extension solely to the east. It was my recommendation, as well as the opinion of Treescene, that this tree be made less of a hazard or remove all hazard.

Trees 43-45 – Felled Ash but sycamore retained. A C Cat section of ash trees and one sycamore. At the time of the original BS5837 report assessment by Treescene these trees did not have significant defects. However, in May 2020 it was clear the trees (and others in the area of same species) were infected by *Hymenoscyphus fraxineus* (ash die back). The retained sycamore has a squirrel damaged crown and sections of die-back. It is a C Cat tree at best so I therefore recommend felling and replacing in winter 2025. The council had a duty of care to Kensington Court and have removed/coppice infected ash trees. These trees no longer cause shade or rooting area concerns on site.

Oakland's Wood. A mature council owned mixed broadleaf woodland to the west of the site. The woodland height would average at 20m tall. Several mature ash trees were in decline due to *Hymenoschyphus fraxineus* stage 2+. These trees required management sooner rather than later to make them safe to the highway and adjacent homes and also the Kensington Court site – this has now taken place reducing shade concerns to the site significantly. Tree stem locations overall in Oaklands Wood are at a lower level to the site making the trees shorter in terms of shade distance cast on site. Oakland's Wood will continue to be managed by NCC. The woodland does not directly overhang any plots on site. The main woodland RPA is located below and behind the boundary wall to the site. NCC should ensure the woodland eastern boundary (and trees within 1.5 lengths of site) are suitably assessed and any work noted carried out as soon as practicable. This ensures the site to be a safe location given the proposed change of use and occupancy frequency. Protected by boundary fences/walls. Crown lifting of foliage over the access road is however advised to meet highway clearance regs of 5.2m.

PTO.

Shading Plan

The screen grab image below is available as scale A4 pdf plan. Tree heights (taken from Treescene report) have been amended due to levels i.e. where a tree is lower than the area it affects, the height has been corrected by the level change.

T4 has some potential for shading but the 2025 layout has moved the plot back and further away from the shade quadrant.

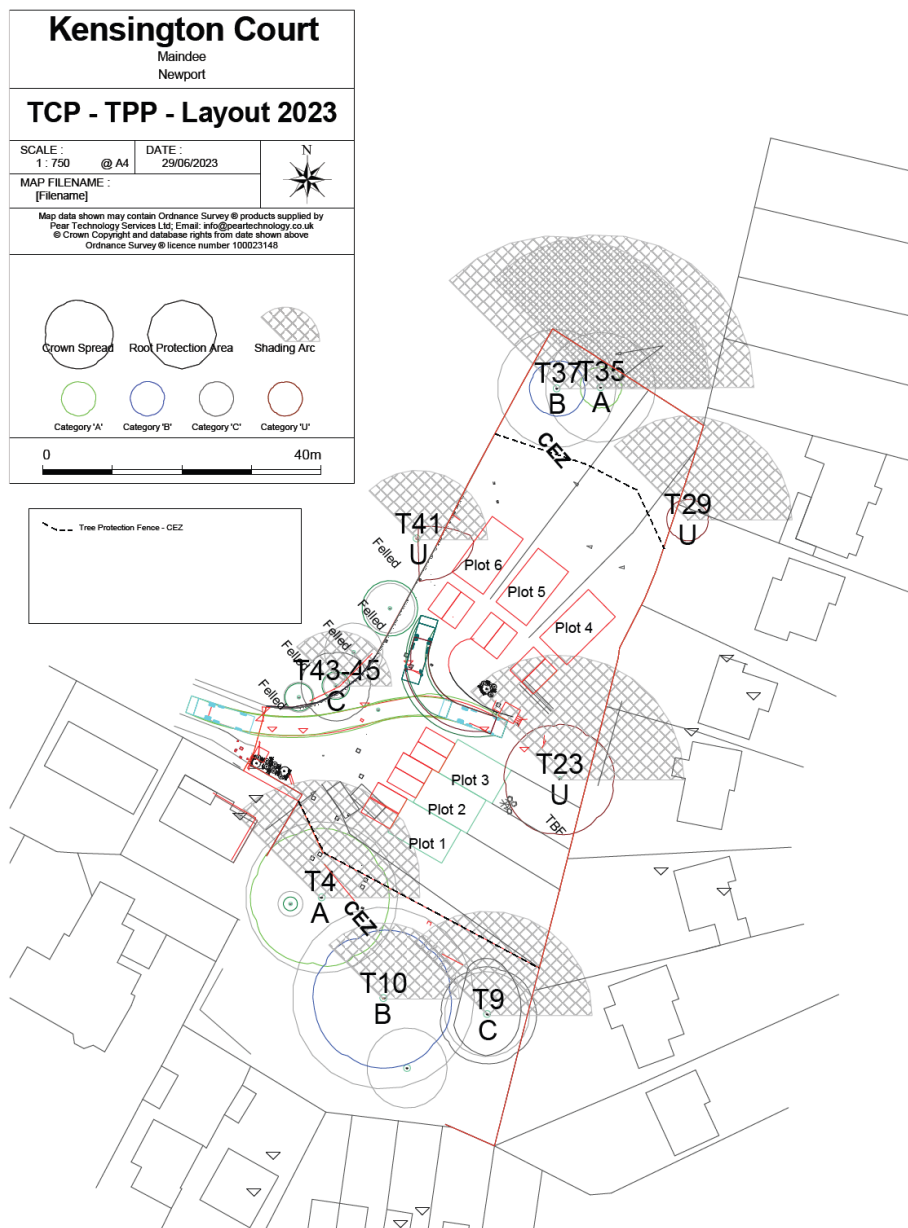
T10 little shade influence to the proposal.

T9 little shade influence to the proposal.

T23 No shade influence to the proposal due to the tree being removed due to advanced crown decline (50%) dead.

T29 little to no shade influence to the proposals.

T35 & T37 No shade influence to the proposals.



Conclusion

The site density has been further reduced by one unit in 2023 due to the request of the LPA again revised in 2025 – each revision lessening any perceived impact on trees. No plot will suffer excessive shade duration through the day. Overall, I see no arboricultural reason that development within existing hard surface and building areas can't take place with appropriate tree protection measures in place. There is no detrimental tree loss to the site (without good reason for removal). Re planting will be required for new gardens/open space areas that would mitigate any previous tree losses on site from on-going management. All land owners have a duty of care to manage/maintain trees.

The council can insist on the use of an AWB for all key stages on site and ongoing arb monitoring visits.

Careful placed tree protection measures are required on site. This should be carried ASAP following the initial tree work phase and well before any site occupation by plant equipment for demolition or clearance of any kind to ensure plant equipment does not stray into rooting areas of retained trees.

The site has a woodland/tree scape feel to it due to the topography and trees on site and also in the local area. This woodland feel/appeal needs to be factored in to all sales of potential plots. NCC will not accept repeated requests for felling or pruning of trees. Prospective buyers need to be well aware of this.

Recommendations

1. Carry out all recommended trees works as per this AIA and where required detail of the Treescene BS5837 2012 report using a suitably qualified and experienced tree contractor. Check all works have written permission from NCC prior to undertaking work. Ensure specification is correct with the site arboriculturist – JPTC. No large plant equipment to be on site – dumpers/excavator.
2. All garden creation in/near tree rooting areas will need to be a case of restoration of the existing. Machinery such as excavators cannot be used. All work required will be hand/pedestrian tools only. No raising or lowering of soils within tree RPAs is permitted.
3. All tree protection measures are required to be in place prior to any site occupation for demolition phases and construction and utilization of heavy plant equipment. Do not carry out any clearance work on site without written permission from NCC.
4. Undertake a marking out exercise once tree protection fencing is in place on site to assess for safe working room and areas requiring and arboricultural watching brief work (AWB). Agree any AWB work in advance with NCC and ensure all protection to trees is maintained throughout the development phases.
5. All sales of plots should be based upon current and increasing tree cover in the area and wildlife that comes with it. It is a green and ecologically important region of Newport. Potential customers should be aware of the potential for partial shading, leaves, tree litter, tree height/presence and wildlife on and around the site. No tree removals or pruning work will be granted on the basis of general tree nuisance or light complaints. A report from a suitably qualified and experienced arboriculturist would be required to support any tree work on site post development.
6. Access to the lower site area will require a NO DIG construction method across the rooting area of T4. A specification for this will be required and the area to be overed placed on the site plan.