

Canopy Cover Assessment Guidance

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Introduction

Policy CC1 (Climate Change) of the [adopted Local Plan](#) (2022) includes criteria for how a low carbon future for Colchester will be achieved. In relation to canopy cover, the policy says:

(iv) A Canopy Cover Assessment will be required for all major applications. Development proposals should seek where appropriate to increase the level of canopy cover on site by a minimum of 10%. In circumstances, where this is not possible or desirable, compensatory provision should be identified and secured through a legal obligation.

The support text to policy CC1 adds the following about canopy cover assessments:

The benefits for the natural and local environment and climate change of tree canopy cover are widely recognised. A study (The Canopy Cover of England's Towns and Cities: baselining and setting targets to improve human health and well-being) carried out in 2017, concluded the following:

- An average TCC of 20% should be set as the minimum standard for most UK towns and cities, with a lower target of 15% for coastal towns;
- Towns and cities with at least 20% cover should set targets to increase cover by at least 5% (i.e. above the $\pm 2\%$ tolerance of i-Tree Canopy) within ten to 20 years (depending on what is achievable against their baseline); and
- Targets and strategies for increasing tree cover should be set according to the species, size and age composition of the existing urban forest, based upon a ward/district level and land-use assessment.

The tree canopy coverage for Colchester Borough is currently 18% varying between wards / locations there are some areas with larger and better canopy cover and others with significantly less. As per the recommendation above, the long-term aim should be to increase the canopy cover of the borough to 20% and then 25%. It is recognised that this is an aspirational target, but that new development should seek to contribute to increase tree canopy cover where appropriate. It is considered that 10% as a target on development sites where

appropriate would help to mitigate the likely losses of trees over the plan period whilst steadily increasing the overall canopy cover of the borough.

A Canopy Cover Assessment will be required for all major applications. Development proposals should seek where appropriate to increase the level of canopy cover on site by a minimum of 10%. In circumstances, where this is not possible or desirable, compensatory provision should be identified and secured through a legal obligation. This will increase the overall canopy cover of the borough, enable sites to mitigate and adapt to climate change and deliver biodiversity net gain.

(paragraphs 5.5-5.7)

Major applications are defined as per Article 2 of the Town and Country Planning (Development Management) Procedure (England) Order 2015 as: Development involving any one or more of the following—

- a) the winning and working of minerals or the use of land for mineral-working deposits;
- b) waste development;
- c) the provision of dwellinghouses where -
 - (i) the number of dwellinghouses to be provided is 10 or more; or
 - (ii) the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph;
- d) the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or (e) development carried out on a site having an area of 1 hectare or more.

Whilst the requirement for increasing tree canopy cover relates to major applications, all minor applications are also encouraged to increase tree coverage onsite.

The importance of trees is recognised in the [NPPE](#), which says:

Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users. (paragraph 131)

Purpose of guidance

This guidance is aimed at Development Management Officers and applicants. The purpose of this guidance is to set out the Council's expectations in relation to canopy cover assessments.

Background – What is a canopy cover assessment?

A canopy cover assessment is an assessment of the area of ground directly covered by the leaves and branches of vegetation and is expressed as a percentage.

The term hedgerow can be applied to a wide range of planting features, many of which will not provide meaningful canopy cover value. Therefore, hedgerows will not be included in the canopy cover calculations. However, if the applicant feels there is justification for including them, this should be discussed with the Council.

The principal objective of the tree canopy cover assessment is to help understand the urban forest resource, specifically the amount of tree canopy that exists on an individual site at present. Canopy cover assessments provide a more accurate representation than simply counting the number of trees. Represented as a percentage of the area in total it is then much more accurate to show changes in the cover (increase or decrease).

The importance of vegetation in towns and urban areas is long recognised; it provides shade, evaporative cooling, rainwater interception. It has an influence on other items such as air quality, energy use, biodiversity, and the reduction of the urban heat island effect. It also has positive impacts on human health and mental wellbeing.

There is an ongoing and increasing level of evidence that has made it clear that trees are a cost-effective way of providing a wide range of benefits to the environment, individuals and society and as part of the wider green infrastructure are an important component of climate change adaption strategies.

How will it work?

Measure existing canopy

The applicant will need to assess existing canopy cover area on site, in m², using a tree and/or a topographical survey. The British Standard (BS5837) is the standard which developers and local authorities work to when considering how trees are treated on a development site. The canopy spread of trees is measured at the four cardinal points and once they have been plotted on a plan it will be straightforward to measure the canopy area. The total area of existing canopy should then be expressed as a percentage of the total size of the red line boundary of the development site.

The initial canopy cover measurement can be derived from the tree survey. However, as the crowns of trees often grow across boundaries it is important to make it clear that for the purposes of measurement, only canopy which is within the red line boundary of the development site can be counted.

New tree planting

Once the current level of canopy cover on the site has been measured, it is necessary to work out how new tree planting can achieve a minimum of 10% increase in canopy cover. A Tree Planting Plan should be prepared to show the location, species, and radius of the canopy of new trees. This can be used to calculate canopy cover, in m², post development, and calculate the percentage increase in canopy cover.

It will be challenging to achieve 10% increase in canopy cover at the time of planting. It takes many years for trees to grow to their potential and so the canopy cover target is aimed at a future time.

The assessment must take into account the shape and size of trees to give a more accurate representation of the canopy cover value and the soil volume requirements for each tree to be planted.

There is a direct relationship between how well a tree can grow above ground and the health and resources of the root system below. Trees need soil in which to grow and that soil needs to provide for the tree for many years if it is to reach its full potential. The volume and quality of soil, and the way it is provided will dictate the size to which a tree can grow. It is often considered that a tree needs approximately 0.6m³ of soil for each 1m² of canopy projection.

What information is required in support of an application?

To support the application, applicants should submit a report which clearly details the percentage of existing canopy cover within the red line boundary of the development site, a Tree Planting Plan, and the percentage increase in canopy cover.

All tree surveys must be carried out by a suitably qualified arboricultural consultant.

What if minimum of 10% increase cannot be achieved on site?

Policy CC1 says that in circumstances, where it is not possible or desirable to achieve a minimum of 10% increase in canopy cover, compensatory provision should be identified and secured through a legal obligation. This will only be permitted in exceptional circumstances. The Council's expectation is that major development sites will increase the level of canopy cover within the site by a minimum of 10%.

Compensatory provision will need to be discussed with the case officer on a case-by-case basis. Compensatory provision could include provision of alternative green infrastructure on or adjacent to the site; tree planting adjacent to the site; or a financial contribution, secured through s106, to fund tree planting elsewhere in the borough.