



Wise microclimate tree selection for Cheapside

TDAG Case study



City of London, England

[map: <https://goo.gl/maps/h1AWUYntxow>]

Completion date

July 2011

Team

- City of London Corporation (in-house design)

Further information

n.a.

Version 1.1

Case study sponsor

n.a.

In the centre of the City of London, between St Paul's and Bank, the Cheapside area is undergoing a dramatic transformation. Since 2010, a series of major new developments have more than doubled the amount of retail floor space. The equivalent of a significant shopping mall is being created in a high street location, primarily along Cheapside itself. In response, the City of London Corporation launched a streetscape improvement programme aimed at rebalancing the relationship between pedestrians and vehicles, creating a safer and more inclusive environment while maintaining the current traffic capacity. Traffic lanes have been narrowed to four metres and footways widened by an average of three metres. Unnecessary street furniture has been removed and dedicated loading bays have been created to service the shops without interfering with bicycle or vehicular traffic. The scheme also features one tree replacement and the planting of 19 new trees – helping to calm traffic, enhance the pedestrian environment and alleviate the urban heat island effect prevalent in such an inner city setting.

The positioning of the trees was carefully considered in relation to the extensive amount of underground utilities found in the area. Collaboration with the utility providers meant that some cables, including fibre optics, could be moved about a foot along the street. Without this, the planting would not have been possible. The most challenging negotiation for the client team related to tree selection. The planning and urban design leads were keen to plant avenue-style, with a single species. Their open space and arboriculture colleagues pointed out that very different conditions were found on either side of this east-west street: the northern footway being very hot due to sun exposure and intense reflection from the south facing (often glass) façades, and the southern side lying mostly in the shade. The team further observed that, while Cheapside is a historic street, it had lost its historic building frontage and is now lined with mixture of unevenly set buildings. While a strong line of trees would help to hold together what could have otherwise been a disjointed frontage, the eclectic nature of its development didn't require a planting style reminiscent of the past. The design approach therefore prioritised a linear planting arrangement and adaptation to microclimate over the creation of a unified avenue effect. The shady side of the street is planted with alder trees (*Alnus x spaethii*) while the opposite, sunnier and hotter footway has American sweet gums (*Liquidambar orientalis*).

Counts conducted before (2006) and after (2013) the schemes have shown that the objectives that had been set for the streetscape improvements have been fully achieved: pedestrian footfall has increased by 50%, bicycle traffic has risen by over 200%, while motorised traffic has remained stable. Seven years on following the project completion, the trees on both sides of the street are thriving



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<p>Tags</p> <p><i>Tick what best applies</i></p>	<p>Trees in the Townscape principles:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Principle 1: Know Your Tree Resource <input type="checkbox"/> Principle 2: Have a Comprehensive Tree Strategy <input type="checkbox"/> Principle 3: Embed Trees in Policy and Other Plans <input checked="" type="checkbox"/> Principle 4: Make Tree-friendly Places <input checked="" type="checkbox"/> Principle 5: Pick the Right Trees <input type="checkbox"/> Principle 6: Seek Multiple Benefits <input type="checkbox"/> Principle 7: Procure a Healthy Tree <input type="checkbox"/> Principle 8: Provide Soil, Air and Water <input type="checkbox"/> Principle 9: Create Stakeholders <input type="checkbox"/> Principle 10: Take an Asset Management Approach <input type="checkbox"/> Principle 11: Be Risk Aware (Rather than Risk Averse) <input type="checkbox"/> Principle 12: Adjust Management to Needs 	
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	<p>Technical Solutions (for built projects):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Continuous trench <input type="checkbox"/> Structural soil (sand mix) <input type="checkbox"/> Structural soil (Stockholm system) <input type="checkbox"/> Structural soil (other stone mix) <input type="checkbox"/> Cellular system <input type="checkbox"/> Raft systems 	<p>Design Objective:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Economic growth/regen <input checked="" type="checkbox"/> Traffic calming <input checked="" type="checkbox"/> Enhanced walking <input checked="" type="checkbox"/> Enhanced cycling <input type="checkbox"/> Enhanced public transit <input type="checkbox"/> Remedy conflict btw trees/surroundings <input type="checkbox"/> Water Sensitive Urban Design <input checked="" type="checkbox"/> Reduce urban temperatures <input type="checkbox"/> Increase biodiversity/wildlife habitat

<p>Images</p>	<p>Image 1: As on page 148 in the original version of TiHL. Caption: as on page 148 Credit: as on page 148 <input checked="" type="checkbox"/> I have secured authorisation from the image owner for TDAG to reproduce and reuse this image in its publications as well as on its website and its presentations, and I attach the confirmation email from the image owner.</p>
	<p>Image 2: IMG_563 (edited).jpg <i>(remember to attach the image file when you submit the case study)</i> Caption: In the Autumn, the American sweet gum trees offer a beautiful yellow contrast with the deep green tones of the alder trees across the street Credit: City of London Corporation <input checked="" type="checkbox"/> I have secured written authorisation from the image owner for TDAG to reproduce and re-use this image in its publications as well as on its website and its presentations, and I attach the confirmation email from the image owner.</p>
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Author, sources and peer review

Case study author(s): Enter name(s)

Sources interviewed:

Interviewee 1: Patrick Hegarty, Technical Manager, Open Space Department, City Corporation of London / Interview date: 22/01/2014

Interviewee 2: Bradley Viljoen, Project Officer, Open Space Department, City Corporation of London / Interview date: jan 2014

Other interviewees: Sam Lee, Project Manager, City Corporation of London

I haven't interviewed anyone, as this is my own work.

Peer review:

A full draft of this case study has been reviewed by:

Interviewee 1

Interviewee 2

Other (please specify):