

Committee(s)	Date:
Planning & Transportation Committee	1 October 2019
Subject: Wind Microclimate Guidelines	Public
Report of: Annie Hampson, Chief Planning Officer and Development Director	For Decision

Summary

The Wind Microclimate Guidelines are a result of officers working with the Wind Engineering community to establish a more robust and rigorous methodology for Wind assessments accompanying planning applications for new schemes.

Main Report

Background

The City of London Local Plan 215, Policy DM10.1, requires that the design of new development should avoid unacceptable wind impacts at street level. In 2017, the City Corporation published Planning Advice Notes on wind, solar glare, solar convergence and sunlight to provide guidance to City developers.

New development in the City is required to provide a microclimate assessment, addressing wind impacts. Where there is likely to be a wind impact, for example in relation to tall buildings, a wind tunnel test and Computer fluid modelling would normally be expected culminating in a report demonstrating the degree of change in conditions.

To provide further guidance to developers on the wind evidence required to support development proposals, the City Corporation has now published new guidelines. The Wind Microclimate Guidelines are the UK's first such guidelines and establish a more robust methodology to Wind Assessments and raises the benchmark for acceptable wind conditions resulting from new development proposals in the City. The Guidelines are a result of a consensus from the Wind Engineering community and are intended to ensure the comfort and safety of pedestrians and cyclists.

The document is a Technical guidance to Wind Engineering practitioners and complements the City's Transport Strategy and Local Plan which aim to prioritise pedestrians, promote cleaner and healthier ways to travel, and increase the amount of high-quality public space in the City.

The Wind Microclimate Guidelines will establish a robust and rigorous methodology for carrying out Wind assessments to accompany relevant planning applications. The Guidelines are innovative and will assist in securing the best possible wind microclimate conditions resulting from new development. The Guidelines support the City's microclimate policy and have been prepared in conjunction with the wind engineering community.

Key elements of the guidelines include:

- A more robust framework for assessing the impact of planning applications on wind conditions. In particular, previously acceptable 'business walking conditions' are now reclassified as 'uncomfortable', and to be avoided other than in exceptional circumstances of limited public access.
- Require that wind impacts are tested at the earliest point of a scheme's design development (e.g. height and massing) to avoid the need to retrofit wind mitigation measures
- Ensure more micro-level assessments of wind directions are carried out in wind tunnel testing including testing roadways as well as pavements
- Apply a new rigorous code of practice in the use of Computational Fluid Dynamics (CFD)
- Require the commissioning of two separate consultants, one to carry out wind tunnel testing and the other CFD, and interrogate any discrepancies between both sets of results
- Assess the variation of mean and gust wind speed and height
- Introduce the UK's first criteria to ensure the safety and comfort of cyclists
- Highlight the need for wind testing to take account of more vulnerable groups in society (such as the very young elderly and those with

Given technological advancements in Wind Engineering (particularly in the use of CFD), there will be a need to periodically revise and update the Guidelines

The Guidelines establish a more rigorous and robust approach to the methodology and techniques of Wind testing of proposed developments in the City and raises the benchmark of acceptable wind conditions. In this respect, the Guidelines will greatly assist the City in ensuring the best possible wind microclimate conditions results from new development.

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