



To: Panel on Planning, lands and Works – Tamar Development Project
Meeting 11 May, 2006

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Honourable Chair and Members

According to the last released document CB(1)1319/05-06(01), the government has merely stated that it will “consider” requesting the tenders to conduct Air Ventilation Assessment. However, in order to ensure that Tamar is suitable for massive building complex, it is mandatory to assess it scientifically. Therefore this Air Ventilation Assessment should be a pre-requisition instead of treating it just as an optional measure.

LegCo needs to require that they actually do it and COMMIT TO THE RESULTS.

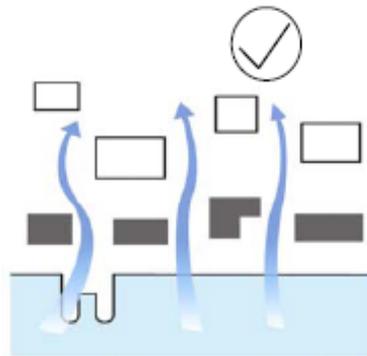
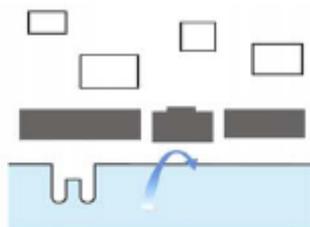
The ultimate goal of this assessment is for ensuring and improving the health and comfort of the working population in that region, this is going to be a pilot project as the AVA problem of our city has never been studied systematically before.

The article released on 14 June 2005 at news.gov.hk on Infrastructure & Logistics stated that this study, commissioned in October 2003, promotes more scientific based urban intervention – conceptually described as a form of “urban acupuncture”- an important measure for better town planning for enhanced, long-term livability in the city’s high-density urban context. The fundamental mission is “How to design and plan our city fabric for better natural air ventilation?”

The study of wind environmentally has been a complicated science and is still very much in the agenda of researchers around the world. This will be a study of parameters like laid-out urban patterns and street widths, careful disposition of building bulks and heights, open spaces and their configurations, breezeways and air paths. Therefore, the implementation process should be monitored carefully and should be the government’s responsibility to ensure this AVA carry out properly for establishing a widely accepted assessment method and a set of definitive assessment standards and criteria in details.

Feasibility Study for Establishment of Air Ventilation Assessment System - Executive Summary 2005

http://www.pland.gov.hk/p_study/prog_s/air_vent/papers&reports/executive_summary_english.pdf



Waterfront Sites

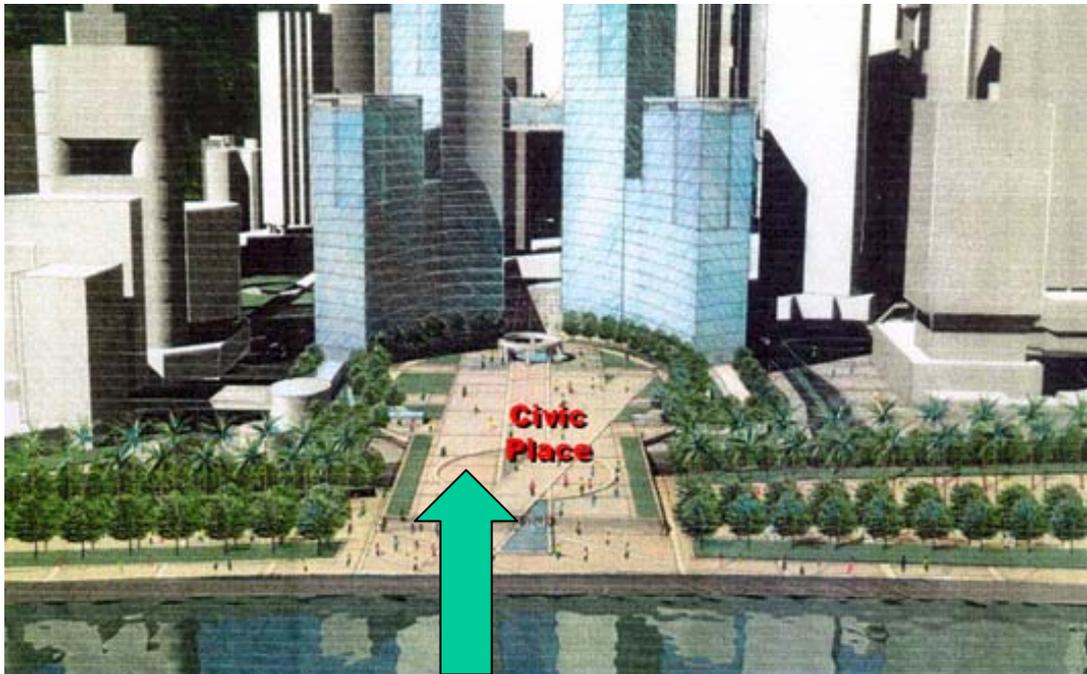
Waterfront sites are the gateways of sea breezes and land breezes due to the sea cooling and sun warming effects. Buildings along the waterfront should avoid blockage of sea/land breezes and prevailing winds.



Government's first proposal – ignored all the AVA design recommendation – yet they could still build this!

Source: www.info.gov.hk/tpb/harbour/en/central_e.htm

Gaps much too narrow



Civic Plaza Very Hot and uncomfortable

**Proposed design fails
Air Ventilation Assessment !**

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In view of the above, it is too early for Preliminary Environmental Review (PER) to conclude that “the Tamar development project would not cause long-term adverse environmental impact arising from both the operation and construction stages”.

Unless LegCo, and the public, have seen an AVA there is no basis for this conclusion.

Moreover, it is not possible for Tamar Development Project to be exempted from AVA as it falls on the following situations:

Preparation of new town plans and major revision of such plans (Tamar + Central Harbourfront)

Erection of building structure within a designated breezeway (Admiralty MTR)

Development with shielding effect on waterfront, particularly in confined airsheds

Large scale development with a high density e.g. site area over 2 hectares and an overall plot ratio of 5 or above, development with a total GFA of 100,000sq.m. or above

For developments situated in an exposed location where there is no apparent shielding from the approaching wind, an assessment of the potential occurrence of windy conditions that may affect the safety of pedestrians should also be included.



Summary

The government stating that it will only “consider” requiring the winning design to undergo an independent Air Ventilation Assessment is very disturbing. The AVA should be a pre-requisition instead of treating it just as an optional measure at the Government’s discretion. The Health of the People is at risk.

It is too early for Preliminary Environmental Review (PER) to conclude that “the Tamar development project would not cause long-term adverse environmental impact arising from both the operation and construction stages” before an AVA is implemented properly.

The original proposed design ignored all the Air Ventilation principles. They could still build this, with all the bad design features, if LegCo does not require an AVA for the winning design. The AVA must not only be done, LegCo and Government **must commit to following the recommendations even if the design must be done again.**

You, honorable members, can prevent another huge mistake like the West Kowloon “windblocking canopy” by requiring an independent AVA to be done and the results of the findings followed, for the winning design **as a condition of funding.**

Best regards,

Annelise Connell
Chairperson, Clear the Air

Ada Sinn
Spokesperson, Clear the Air



June 14, 2005

Planning

Air flow improvements being explored

Urban climatic mapping and objective standards for air ventilation assessments will be considered to improve natural air flow through the city fabric, Director of Planning Bosco Fung says.

The Government will adopt air ventilation assessments for its large-scale development projects, redevelopment works, as well as drafting and revision of outline zoning plans. Discussions with other departments will be held to explore ways to refine the air ventilation assessment system.



Breathing easier: To have better air ventilation, **signage should be vertical** to minimise wind blockage. Greenery will also help reduce urban heat [island effect]

Urban acupuncture

The department released today findings of a feasibility study for the setting up of an air ventilation assessment system.

The study, commissioned in October 2003, promotes more scientific based urban intervention - conceptually described as a form of "urban acupuncture" - for enhanced, long-term livability in the city's high-density urban context.

Chinese University Department of Architecture [Prof] Edward Ng, a member of the study team, said the study focuses on how to design and plan the city fabric for better natural air ventilation. It took Mong Kok and Tseung Kwan O as typical examples of the metro area and new town in Hong Kong.

[Prof] Ng said taking into account the city's climatic and urban factors and high-density condition, it is considered that the more air ventilation the better, and a general breeze at pedestrian level of at least 1.5 metres per second is a useful criterion of air ventilation assessments. This will be beneficial for providing thermal relief and a comfortable outdoor urban environment.

The study has proposed a number of qualitative guidelines to help achieve better air ventilation, including:



- * increasing the overall permeability of the district at ground level by proper linking of open spaces, setting up of open plazas at road junctions, maintaining low-rise structures along prevailing wind direction routes, and widening of minor roads connecting to major roads;
- * avoiding obstruction of sea and land breezes;
- * using vertical type of signages to minimise wind blockage;
- * aligning main streets, wide main avenues and breezeways in a way to maximise the penetration of prevailing wind;
- * linking up opening spaces to form breezeways or ventilation corridors, with structures along these places should be low-rise;
- * providing ventilation corridors for podiums or adopting a terraced podium design;
- * considering height variation for buildings and providing adequate wide gaps between building blocks; and,
- * planting tall trees with wide and dense canopy to enhance pedestrian comfort and reduce urban heat island effect.

4 key stages

The study has also recommended air ventilation assessment be implemented in four key stages, namely:

- * Stage A - establishment of a generic framework and methodology for air ventilation assessment to enable objective comparison between different design options and formulation of qualitative urban design guidelines;
- * Stage B - identification of climatically problematic or sensitive areas (urban climatic mapping) that require particular attention or in need of planning and design interventions;
- * Stage C - setting up of a set of objective assessment standards and criteria for air ventilation assessment; and
- * Stage D - formulation of quantitative design guidelines to enable practitioners to grasp the basic and most important design requirements for a well-ventilated urban environment at an early design stage.

Mr Fung said the study has offered directions in the setting up of an air ventilation assessment system, adding more studies may be needed. The Government will first consider stages B and C, and will look into stage D after the implementation of stage A.



More measures

He said measures had been adopted to improve air flow before the launch of the study, such as introducing planning guidelines, revising outline zoning plans, and setting restrictions on building height.

Several public housing estates have adopted environmental and air ventilation assessments. It is expected the first one, Ngau Tau Kok Upper Estate, will be completed in 2008.

Mr Fung said relevant sections on improving air flow in the Hong Kong Planning Standards & Guidelines will be revised this year. Efforts to promote air ventilation assessments for projects by Housing Society, Urban Renewal Authority, two railway companies and private developers will continue.

Regarding concerns that air ventilation assessments may impact the scope of future developments, Mr Fung said the recommendations have gained support from the academic, real estate, construction sectors and professional groups, adding there is no plan to impose the assessment compulsorily on private developments at the moment.

Source: www.news.gov.hk/en/category/infrastructureandlogistics/050613/html/050613en06007.htm