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**Panel on Development and
Panel on Environmental Affairs**

Joint meeting on 14 December 2009

**Background brief on review of measures
to foster a quality and sustainable built environment**

Purpose

This paper provides background information on the review being undertaken by the Administration in collaboration with the Council for Sustainable Development ("SDC") on measures to foster a quality and sustainable built environment, and gives a summary of the major views and concerns expressed by Members during relevant discussions in the Legislative Council.

Background

Enhancement of sustainable building design

2. Following up on the First Sustainable Development Strategy for Hong Kong in response to the "Report on the Engagement Process for a First Sustainable Development Strategy" issued by the SDC in 2005, the Buildings Department ("BD") commissioned a consultancy study to advise on sustainable building design features that would enhance the urban living space environment. The consultant has recommended certain guidelines on sustainable building design for enhancing air ventilation, pedestrian environment and greenery as well as mitigating urban heat island effect.

Provision of essential, green and amenity features in buildings and gross floor area concessions

3. It has been an established Government policy to facilitate and encourage the provision of essential, green and amenity features in building developments, and this is done through the Director of Buildings, as the Building Authority, by

exercising his discretion provided for in the Buildings Ordinance (Cap. 123) to grant concessions for these features in the gross floor area ("GFA") calculation. Examples of features covered by GFA concessions include ancillary car parks, plant rooms, balconies, sky gardens, podium gardens, areas dedicated for public passage and ancillary recreational facilities such as club houses¹.

4. Following the report of the Independent Committee of Inquiry on the Grand Promenade incident published in April 2006, the Government has critically reviewed the policies on GFA concessions and other measures to control building bulk, height and density. The Independent Committee opined that while the Government's policies for encouraging green and innovative buildings and more amenities, facilities and public space were praiseworthy, they undermined the control over the height, bulk and density of buildings by the granting of GFA concessions.

Energy consumption standards in buildings

5. Another important area which has a direct impact on the sustainability of the built environment is the standard for consumption of energy in buildings. The Electrical and Mechanical Services Department issued voluntary Building Energy Codes ("BEC") in 1998. With public support during a three-month consultation concluded in March 2008, the Administration put forward a proposal on the legislative framework of the mandatory implementation of the Building Energy Codes in July 2009.

Public Engagement on Measures to Foster a Quality and Sustainable Built Environment

6. To gauge public views on the policy options affecting the quality and sustainability of the city's built environment, the Administration in collaboration with SDC launched a public engagement exercise on 20 June 2009, with the publication of an "Invitation for Response" ("IR") document, entitled "Building Design to Foster a Quality and Sustainable Built Environment"². The public engagement exercise ended on 31 October 2009.

7. On sustainable building design, the IR document has included the following guidelines recommended in the consultancy study commissioned by BD for the discussion by members of the public --

¹ The details of the various existing GFA concessions are set out at Annex B to LC Paper No. CB(1)396/08-09(05) provided by the Administration for the meeting of the Panel on Development on 19 December 2008.

² The IR document is the Annex to LC Paper No. CB(1)2342/08-09(01) provided by the Administration for the meeting of the Panel on Development on 28 July 2009.

- (a) provision of separation between buildings in certain large developments;
- (b) provision of building setback at street level in certain developments abutting narrow streets; and
- (c) enhancement of greening in building developments.

8. With regard to the effect of GFA concessions on building height and bulk, the following measures are proposed in the IR document --

- (a) reviewing GFA concessions for mandatory features;
- (b) reviewing car parking provision;
- (c) adjusting incentive for dedicating areas for public passage or road widening;
- (d) reviewing GFA concessions for other green/amenity features;
- (e) capping GFA concessions; and
- (f) reviewing legal status of certain GFA concessions.

9. As regards energy efficiency of buildings, the Administration considers that apart from a proposed mandatory implementation of the Building Energy Codes to set minimum energy efficiency standards for building services installations, there is potential in exploring alternative means of reducing energy consumption by promoting energy efficient building design. Therefore, in the IR document, the public is invited to provide views on what energy efficient building design features should be encouraged and promoted (e.g. appropriate use of shading and glazing to enhance the use of daylight and reduce demand for air-conditioning, rooftop greening and non-absorbing roofing to reduce the amount of heat absorbed by the roof, integration of renewable energy devices in building design etc.). Public views are also sought on whether GFA concessions should be granted for energy efficiency or renewable energy features.

Deliberations of the Panel on Development

10. In December 2008, the Administration briefed the Panel on Development ("DEV Panel") on the major issues identified and the broad policy options in relation to the quality and sustainability of the built environment. The Administration also informed the DEV Panel that in view of the complexity of the matter, it would collaborate with SDC to conduct an extensive public

engagement exercise on the subject. On 28 July 2009, the Administration briefed the DEV Panel on the details of the public engagement exercise, and invited members to give comments on relevant issues.

11. The major concerns and views expressed by individual members during the DEV Panel discussions are as follows --

General issues

- (a) A step-by-step approach to study issues relating to the creation of a sustainable built environment was acceptable.
- (b) If the policy was over-tightened, the pace of urban renewal would be affected.
- (c) Over-control might lead to dull and monotonic buildings.
- (d) Measures to create a sustainable built environment should benefit all instead of only well-off people and careful planning was needed to create such an environment.
- (e) Non-controversial measures such as greening and building setback should be implemented first.
- (f) The Administration should conduct studies on development density on a district basis and impose development controls through Outline Zoning Plans (OZPs). Some OZPs only imposed control over building height which alone was inadequate to control the outturn building bulk.
- (g) Review of the Buildings Ordinance, Building Regulations and the Town Planning Board might also be required to tackle the subject matter in a comprehensive manner.
- (h) Without comprehensive planning for the developments in each district based on environmental and conservation policies, the public engagement exercise would be futile.

On GFA concessions

- (i) The policy direction of promoting green features through GFA concessions was correct. However, at present, the relevant vetting/approval processes were like "black-box" operations dominated by the relevant executive authorities. The crux was to ensure adequate transparency in the vetting/approval processes.

- (j) The Administration should set an overall cap of 10% on GFA concessions. Allowing the existing Joint Practice Notes, which contained large loopholes, to remain in force during the review would be problematic.
- (k) The provision of sky gardens, planting trees and conservation of old and valuable trees should be encouraged by granting GFA concessions. The size of features such as electricity and mechanical chambers and refuse storage rooms should be specified. It was questionable whether GFA concessions should be granted for balconies and clubhouses.
- (l) Granting GFA concessions for car-parking facilities was acceptable because provision of the facilities could reduce the need for at-grade car-parking facilities.
- (m) The Building Authority should not have discretionary power on GFA concessions.

The public engagement exercise

- (n) The IR document should provide some quantitative analyses of the various options in financial terms, such as the loss in land premium as a result of capping GFA concessions, so as to facilitate the public to give informed views.
- (o) The IR document should clearly provide the economic and political trade-offs of adopting the various options. The public should not be given an illusion.
- (p) The IR document was not easy to comprehend, especially for the Chinese version, and this might affect the public's participation in the public engagement process.
- (q) The town planning process in Hong Kong was very complicated. SDC could provide the relevant background to all parties concerned and explain to them why GFA concessions had been introduced as an incentive.
- (r) The Administration should provide information on the possible institutional frameworks and legislative changes with regard to planning and building control powers³.

³ The Administration has provided supplementary information vide LC Paper No. CB(1)2744/08-09(01).

Suggestions of measures to promote sustainable built environment

- (s) The installation of solar energy water heaters should become mandatory for low density developments and village houses.
- (t) The use of solar energy and wind energy should be encouraged in Hong Kong as a first step. Air Ventilation Assessment should also be promoted.
- (u) The Administration should set an example in promoting greening, and step up its efforts in encouraging private developers to follow suit.
- (v) The Administration should give due attention to the cultural aspects in fostering a quality and sustainable built environment.
- (w) Funds could be set aside for housing cultural displays in Government facilities.
- (x) Developing the industry of making pre-fabricated construction units in Hong Kong would be conducive to creating a sustainable built environment.

Deliberations of the Panel on Environmental Affairs on the proposed mandatory implementation of the Building Energy Codes

12. On 26 May 2008, the Administration reported to the Panel on Environmental Affairs ("EA Panel") on the results of the consultation exercise of the proposed mandatory implementation of BEC and the updated proposal for the proposed mandatory scheme. The EA Panel generally supported the proposed mandatory implementation of BECs. Some members hoped that the mandatory scheme could be extended to cover more building developments to achieve greater energy savings. More efforts should be made to promote energy audits, including the use of the Environment and Conservation Fund to provide the necessary funding support. Consideration should be given to introducing design standards, such as specifications on the thickness of walls, choice of construction materials, and facing of buildings etc, that would improve energy efficiency performance of new buildings. Concern was also raised on the energy efficiency standards being adopted for the lighting systems of commercial buildings because some buildings had kept their lights on overnight, particularly those advertising signboards on the outer walls, the excessive glare of which was a constant source of complaint from affected residents.

13. When the Administration's proposal on the legislative framework of mandatory implementation of the BEC was discussed at the EA Panel on 15 July 2009, members were mainly concerned about the impact of mandatory implementation of BECs on owners of buildings, particularly those old and smaller developments. Members enquired whether financial subsidy and other kinds of assistance would be provided to assist owners in complying with the future legislative requirements. While pointing out that building owners would benefit from savings in electricity costs by improving building energy efficiency, the Administration advised that it would step up efforts on public education and partnership on energy savings in buildings, and would assess the need for additional funding to assist existing building owners to comply with BECs, taking into account the experience of the two Buildings Energy Efficiency Funding Schemes opened for application since 8 April 2009⁴.

Recent developments

14. The Administration issued a Legislative Council Brief on 2 December 2009 indicating that the Administration would introduce the Buildings Energy Efficiency Bill into the Legislative Council on 9 December 2009 for mandatory implementation of the BECs.

15. A joint meeting of the DEV Panel and the EA Panel will be held on 14 December 2009 to receive public views on the subject of "Green buildings".

Relevant papers

16. A list of relevant papers is in the **Appendix**.

Council Business Division 1
Legislative Council Secretariat
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⁴ Two funding schemes were set up under the Environment and Conservation Fund in April 2009, with \$150 million earmarked to subsidize building owners to carry out energy-cum-carbon audits, and another \$300 million earmarked to serve as an incentive for conducting energy efficiency projects by subsidizing part of the expenditure. Details of the schemes are set out in LC Paper No. CB(1) 1357/08-09(07).

Review of measures to foster a quality and sustainable built environment

List of relevant papers

Council/Committee	Date of meeting	Paper
Panel on Planning, Lands and Works	22 February 2001	<p>Administration's paper on "Green buildings - a proposal to enhance the quality of our living" (LC Paper No. CB(1)181/00-01(02)) http://www.legco.gov.hk/yr00-01/english/panels/plw/papers/a181e02.pdf</p> <p>Minutes of meeting (LC Paper No. CB(1)516/00-01) http://www.legco.gov.hk/yr00-01/english/panels/plw/minutes/pl211100.pdf</p>
Public Accounts Committee (PAC)	February 2006	<p>PAC Report No. 45 - Chapter 1 of Part 7, Development of a site at Sai Wan Ho http://www.legco.gov.hk/yr05-06/english/pac/reports/45/m_7a.pdf</p>
—	May 2006	<p>Report of the Independent Committee of Inquiry on the Sai Wan Ho Development on Inland Lot No. 8955 http://www.info.gov.hk/info/ici/eng/</p>
Finance Committee	15 March 2006	<p>Supplementary question raised by Hon LEE Wing-tat and Dr Hon YEUNG Sum (Reply serial no. S-HPLB(PL)04) http://www.legco.gov.hk/yr05-06/english/fc/fc/sup_w/s-hplb-pl-e.pdf</p> <p>Minutes of meeting (Report on the Examination of the Estimates of Expenditure 2006-07, Chapter XIV : Planning and Lands) http://www.legco.gov.hk/yr05-06/english/fc/fc/minutes/sfc_rpt.pdf</p>

Council/Committee	Date of meeting	Paper
Council Meeting	26 April 2006	Question No. 16 on "Eco-buildings" Hansard (pages 98 to 101) http://www.legco.gov.hk/yr05-06/english/counmtg/hansard/cm0426ti-translate-e.pdf
Council Meeting	17 May 2006	Motion debate on "Supporting the conclusions and recommendations of the Public Accounts Committee on the development of a site at Sai Wan Ho" Hansard (pages 118 to 196) http://www.legco.gov.hk/yr05-06/english/counmtg/hansard/cm0517ti-translate-e.pdf
Council Meeting	25 October 2006	Question No. 8 on "Residential property projects with green features" Hansard (pages 25 to 27) http://www.legco.gov.hk/yr06-07/english/counmtg/hansard/cm1025-translate-e.pdf
Council Meeting	1 November 2006	Question No. 6 on "Policy on green and innovative buildings" Hansard (pages 48 to 56) http://www.legco.gov.hk/yr06-07/english/counmtg/hansard/cm1101-translate-e.pdf
Council Meeting	23 May 2007	Motion debate on "Policies on sustainable urban development and green buildings" Hansard (pages 146 to 176) http://www.legco.gov.hk/yr06-07/chinese/counmtg/floor/cm0523-confirm-ec.pdf
Council meeting	9 April 2008	Written question on "Residential projects with green features" Hansard (pages 56 to 70) http://www.legco.gov.hk/yr07-08/chinese/counmtg/floor/cm0409-confirm-ec.pdf

Council/Committee	Date of meeting	Paper
Development Panel	27 May 2008	<p>Administration's paper on "Review of measures to promote green features in building developments" (LC Paper No. CB(1)1602/07-08(04)) http://www.legco.gov.hk/yr07-08/english/panels/plw/papers/dev0527cb1-1602-4-e.pdf</p> <p>Minutes of meeting (LC Paper No. CB(1)2309/07-08) http://www.legco.gov.hk/yr07-08/english/panels/plw/minutes/de080527.pdf</p>
Development Panel	19 December 2008	<p>Administration's paper on public engagement on measures to foster a quality and sustainable built environment (LC Paper No. CB(1)396/08-09(05)) http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/dev1219cb1-396-5-e.pdf</p> <p>Minutes of meeting (LC Paper No. CB(1)1348/08-09) http://www.legco.gov.hk/yr08-09/english/panels/dev/minutes/dev20081219.pdf</p> <p>Information note on gross floor area concessions granted under the Buildings Ordinance prepared by the Legislative Council Secretariat (LC Paper No. CB(1)416/08-09(01)) http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/dev1219cb1-416-1-e.pdf</p>
Panel on Environmental Affairs	15 July 2009	<p>Administration's paper on Legislative framework of mandatory implementation of the Building Energy Codes (LC Paper No. CB(1) 2197/08-09(03)) http://www.legco.gov.hk/yr08-09/english/panels/ea/papers/ea0715cb1-2197-3-e.pdf</p> <p>Paper on mandatory implementation of Building Energy Codes prepared by the Legislative Council Secretariat (background brief) (LC Paper No. CB(1)2197/08-09(04)) http://www.legco.gov.hk/yr08-09/english/panels/ea/papers/ea0715cb1-2197-4-e.pdf</p>

Council/Committee	Date of meeting	Paper
		Minutes of meeting (LC Paper No. CB(1)2779/08-09) http://www.legco.gov.hk/yr08-09/english/panels/ea/minutes/ea20090715.pdf
Development Panel	28 July 2009	Administration's paper on public engagement process on "Building Design to Foster a Quality and Sustainable Built Environment" of the Council for Sustainable Development (LC Paper No. CB(1)2342/08-09(01)) http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/dev0728cb1-2342-1-e.pdf Minutes of meeting (LC Paper No. CB(1)479/09-10) http://www.legco.gov.hk/yr08-09/english/panels/dev/minutes/dev20090728.pdf Follow-up paper provided by the Administration (LC Paper No. CB(1)2744/08-09(01)) http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/dev0728cb1-2744-1-e.pdf
Council meeting	11 November 2009	Question No. 5 on "Gross floor area concessions" http://www.info.gov.hk/gia/general/200911/11/P200911110218.htm