

立法會 *Legislative Council*

LC Paper No. CB(1)155/10-11(07)

Ref: CB1/PL/DEV

Panel on Development

Meeting on 26 October 2010

Updated background brief on review of measures to foster a quality and sustainable built environment

Purpose

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

Background

Enhancement of sustainable building design

2. To find sustainable solutions to the interaction between people and the environment, SDC launched its first public engagement exercise in 2004 on, among other issues, urban living space and produced the "Report on the Engagement Process for a First Sustainable Development Strategy". In response, the Administration published "A First Sustainable Development Strategy for Hong Kong" (First Strategy) in 2005. One of the targets in the First Strategy is to maintain and review, inter alia, guidelines governing sustainable design with special regard to issues such as buildings affecting view corridors or restricting air flow.

3. The Buildings Department (BD) subsequently commissioned a consultancy study to advise on sustainable building design features that would enhance the urban living space environment. The consultant recommended certain guidelines on sustainable building design for enhancing air ventilation, pedestrian environment and greenery as well as mitigating urban heat island effect. Specifically, the guidelines recommend the provision of separation between buildings in certain large developments; provision of building setback at

street level in certain developments abutting narrow streets; and enhancement of greening in building developments.

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

4. To facilitate and encourage developers to provide essential, green and amenity features in building developments as recommended in the guidelines, the Director of Buildings, as the Building Authority (BA), has discretion under the Buildings Ordinance (Cap. 123) to exclude these features from the development's permissible gross floor area (GFA). 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. The public are, however, concerned that the various GFA concessions would increase building bulk, height and density.

5. Following the report of the Independent Committee of Inquiry on the Grand Promenade (Independent Committee) 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.

6. On 1 June 2010, BD issued a revised practice note requiring a detailed breakdown of all GFA concessions granted in new building developments to be shown on building plans. Apart from the requirement to specify the areas of various GFA concessions on the building plans, the revised practice note also requires authorized persons² to provide a summary of all GFA concessions upon application for occupation permits. The summary will be published on the BD's website. The revised practice note will apply to newly completed buildings for which an application for an occupation permit is submitted on or after 1 September 2010.

Energy efficiency of buildings

7. Energy efficiency of buildings also affects the sustainability of the built environment as it helps improve local air quality and alleviate the adverse effect of climate change. The Electrical and Mechanical Services Department issued the voluntary Building Energy Codes (BEC) in 1998. With public support

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 Under the Building Ordinance (Cap. 123), an "authorized person" means a person whose name is on the authorized persons' register kept under section 3(1)(a) as an architect; (b) as an engineer; or (c) as a surveyor.

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. The Buildings Energy Efficiency Bill was introduced on 9 December 2009. A Bills Committee has been set up to scrutinize the Bill and scrutiny is in progress.

8. Apart from enforcing energy efficiency measures through legislative means, the Administration has been promoting the objective both within the Government and in the private sector. Since 2005, all new government buildings as well as major retrofitting and renovation projects have been required to comply with BEC, and to incorporate energy efficient features and renewable energy technologies into their designs where appropriate. In April 2009, the Development Bureau and the Environment Bureau jointly promulgated a comprehensive target-based environmental performance framework for new and existing government buildings. This includes targets in various environmental aspects such as energy efficiency, renewable energy, indoor air quality and greenhouse gas emission.

9. The Administration has implemented the Green Manager Scheme within Government where Green Managers are appointed to oversee green housekeeping within their offices. All bureaux and departments are required to publish annual environmental reports on their environmental policies and actions taken. An additional \$130 million was allocated in 2009-2010 to carry out works to enhance energy efficiency of government buildings and public facilities. A package of \$450 million minor works projects to improve the green performance of government buildings is being implemented.

10. In April 2009, the Environment and Conservation Fund (ECF) allocated \$150 million to subsidize owners of residential, industrial and commercial buildings to carry out energy-cum-carbon audits. ECF also allocated \$300 million to subsidize these building owners to conduct energy efficiency projects. ECF had also provided funding support for installing green features in school campuses and premises of non-governmental organizations such as camp sites and elderly homes. These features include greening, renewable energy installations and energy-efficient devices.

11. The Administration has, in collaboration with different sectors of the community, launched various schemes to engage the public on carbon audit and water conservation with a view to achieving a sustainable built environment. The Hong Kong Green Building Council (HKGBC) was established in 2009 to promote adoption of green building standards and construction of green buildings through collaboration of the professional sector and the Administration. On 1 April 2010, a building environmental assessment method for the Hong Kong environment, called "Building Environmental Assessment Method ("BEAM") Plus" green building label, was officially launched. The BEAM Plus, recognized by the HKGBC, helps building owners make use of one assessment

methodology with best practices in planning, design, construction, management, operation and maintenance of buildings. To support the operation of the BEAM Plus, the HKGBC has launched the programme of "BEAM Professionals" since April 2010 and is operating associated training courses and assessments. With a view to refining the system of BEAM Plus, a consultancy study together with a stakeholder engagement exercise will be carried out by the HKGBC.

Report on the Public Engagement Process on Building Design to Foster a Quality and Sustainable Built Environment

12. To gauge public views on the policy options affecting the quality and sustainability of the city's built environment, the Administration launched a public engagement exercise in collaboration with SDC 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"³. The public engagement exercise ended on 31 October 2009. The "Report on the Public Engagement Process on Building Design to Foster a Quality and Sustainable Built Environment"⁴ was published in June 2010. On 27 July 2010, the Administration and the Chairman of the SDC briefed the Panel on Development (DEV Panel) on the Report.

13. The SDC's major recommendations in the Report for the Administration's actions were --

GFA concessions

- To impose an overall cap on the total amount of GFA concession to be granted for a development project, and to adopt a more performance-based and site-specific approach;
- To review and reduce the level of a range of existing GFA concessions for green and amenity features, and to do away with GFA concession for mail delivery rooms and for wider common corridors unless natural ventilation is provided for; and
- To reduce the level of GFA concessions for car parks in general and promote underground car parks where technically feasible through provisions of relatively higher level of GFA concession than above-ground car parks;

Sustainable building design

³ The IR document is at 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.

⁴ The Report is at the Annex to the LC Paper No. CB(1)2601/09-10(01) provided by the Administration for the meeting of the Panel on Development on 27 July 2010.

- Mandatory building separation for large building developments and mandatory building setback for buildings abutting narrow streets to mitigate the wall-effect and urban heat island effect. Adjustment of the prescribed requirement might be allowed upon; and
- Mandatory requirement to provide greenery for large sites;

Building energy efficiency

- To review the subsequent statutory requirements under the mandatory Building Energy Codes from time to time and provide assistance to existing buildings for retrofitting;
- To promote use of building energy efficiency benchmarking and accreditation system;
- To provide additional building design guidelines for building energy efficiency; and
- To take the lead by setting a target in implementing energy efficiency initiatives in public buildings.

Other measures to foster a quality and sustainable built environment

14. The Town Planning Board (TPB) has been reviewing the Outline Zoning Plans (OZPs) of various districts and, where justified, revising the relevant planning parameters to lower development intensity. Priority in the review of OZPs is given to areas of special setting and character such as areas around the Victoria Harbour and within view corridors to important ridgelines, potential land sale sites and areas subject to high development or redevelopment pressure.

15. The Planning Department is undertaking an "Urban Climatic Map and Standards for Wind Environment - Feasibility Study". The Study would be completed in end 2010/early 2011. The study's findings would provide a more scientific and objective basis for urban climatic consideration in town planning.

Discussions at the Panels

16. 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.

17. 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. A joint meeting of the DEV Panel and the Panel on Environmental Affairs (EA Panel) was held on 14 December 2009 to receive public views.

18. The policy and practice of granting GFA concessions were the key issue during Panel discussions. While GFA concessions were considered necessary to incentivize developers to provide green features, some members were concerned that developers could gain up to 40% to 50% increase in GFAs through concessions. These extra GFAs were used to boost saleable areas of the respective development, but were not reflected in the premium. Such practice might create an impression of collusion between the Government and business sector. Some members considered that BA's discretion in granting GFA concessions should be tightened and closely monitored to prevent corruption or abuse, but not to the extent that small property owners would be adversely affected. However, a member pointed out that development density was already controlled through land sales conditions, so GFA concessions should not be an issue. The Administration advised that the control on GFA concessions required further debate in the community before specific measures could be developed. In fact, property owners and residents would benefit from green features in buildings provided that sufficient information was provided in the sales brochures.

19. During Panel discussions on the public engagement exercise in 2009, the following views were expressed by Panel members --

- (a) The Administration should have holistic planning and set targets when implementing energy saving measures so as to assess the effectiveness of the measures;
- (b) Arcades could be designed with windows so that air-conditioning would only be required in summer;
- (c) The Administration should promote green building materials and the relevant certification industries; and
- (d) The Administration should consider requiring public rental housing and developments of the MTR Corporation, Limited and the Urban Renewal Authority to adhere to HKGBC's standards.

20. On 27 July 2010, the Administration and the Chairman of the SDC briefed the DEV Panel on the "Report on the Public Engagement on Building Design to Foster a Quality and Sustainable Built Environment" concerning the SDC's recommendations on GFA concessions, sustainable building design and

building energy efficiency for the Administration's actions. The Secretary for Development advised that the Administration would consider the recommendations and announce new measures in the fourth quarter of 2010. Any changes in prevailing policies to implement SDC's recommendations would be reflected in new practice notes that would be effective as early as April 2011, and applicable to new building plans submitted to BD.

21. Some Panel members expressed the following concerns on SDC's recommendations :

- (a) Requiring building setback and the resultant increase in building height or bulk were trade-offs. A community consensus was needed as to whether the trade-offs were acceptable;
- (b) Before implementing the recommendations of SDC, the Administration would need to consider at the policy level how to delineate the responsibility for the provision of such public facilities, e.g. what facilities should be provided by the Government and the developers respectively. In the case that a facility is to be provided by the developer, the maintenance responsibility of that facility would likely be passed on to the property buyers;
- (c) As bay windows would not be accountable for GFA calculation if certain criteria were met, developers were able to increase sales revenue by providing bay windows;
- (d) The Administration should formulate a policy to deal with inflated saleable areas to protect property buyers' interests. SDC's recommendation to cap the GFA concessions allowable in a building was not sufficient as developers were able to inflate saleable areas by as many as 30% to 40% without increasing GFA;
- (e) The Administration and SDC were able to identify the major issues, but the recommendations might not solve the problem completely;
- (f) Underground car parks should not be encouraged because they were not sustainable given the extra ventilation and lighting requirements. Some developers abused GFA concessions by providing over-sized car parking space, thereby inflating profits with little cost. The Administration should review the provision of car parking space in private buildings; and
- (g) There should be more flexibility in the implementation of town planning policies and that more incentives should be provided to encourage developers to adopt more sustainable and energy efficient building designs. It would not be effective to impose

building setback or widening of building separation haphazardly in pockets of densely built-up areas. The Administration should explore whether such objectives could be implemented on a wider district basis.

Recent developments

22. In the Policy Address announced on 13 October 2010, the Chief Executive stated that, in the light of the recommendations of the SDC, the Administration would introduce a series of measures, requiring the incorporation of such design elements as building separation or enhancement of building permeability, setback and greenery in new buildings. The Administration would raise the building energy efficiency standards and require developers to provide environmental and energy consumption information of buildings for the reference of potential users.

23. According to the Policy Address, the Administration has decided to tighten the policy on GFA concessions. Major changes include removing the concessions for certain features, lowering the level of concessions for car parks, balconies, utility platforms and clubhouse facilities, and imposing an overall cap of 10% for a number of features which still qualify for concession. The maximum permissible area of bay windows will also be reduced.

24. The Administration has provided a Legislative Council Brief on "Measures to Foster a Quality and Sustainable Built Environment" (Ref: DEVB(PL-CR) 12/2010).

25. The Administration will brief the DEV Panel on the measures at the Panel meeting on 26 October 2010. The Administration has indicated that the industry will be consulted on the draft practice notes, any new policy measures will not be implemented before 31 March 2011. The Administration has proposed that the revised practice notes should come into effect on 1 April 2011 and be applied to building plans submitted to BD for approval on or after 1 April 2011.

Relevant papers

26. A list of relevant papers with their hyperlinks is in the **Appendix**.

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>
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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
Panel on Development	27 May 2008	Administration's paper on "Review of measures to promote green features in building developments" (LC Paper No. CB(1)1602/07-08(04))

Council/Committee	Date of meeting	Paper
		<p>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)</p> <p>http://www.legco.gov.hk/yr07-08/english/panels/plw/minutes/de080527.pdf</p>
Panel on Development	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))</p> <p>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)</p> <p>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))</p> <p>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))</p> <p>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))</p> <p>http://www.legco.gov.hk/yr08-09/english/panels/ea/papers/ea0715cb1-2197-4-e.pdf</p> <p>Minutes of meeting (LC Paper No. CB(1)2779/08-09)</p> <p>http://www.legco.gov.hk/yr08-09/english/panels/ea/minutes/ea20090715.pdf</p>

Council/Committee	Date of meeting	Paper
Panel on Development	28 July 2009	<p>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</p> <p>Minutes of meeting (LC Paper No. CB(1)479/09-10) http://www.legco.gov.hk/yr08-09/english/panels/dev/minutes/dev20090728.pdf</p> <p>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</p>
Council meeting	11 November 2009	<p>Question No. 5 on "Gross floor area concessions" http://www.info.gov.hk/gia/general/200911/11/P200911110218.htm</p>
Panel on Development and Panel on Environmental Affairs	14 December 2009	<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>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>Minutes of joint meeting (LC Paper No. CB(1)1428/09-10) http://www.legco.gov.hk/yr09-10/english/panels/dev/minutes/devea20091214.pdf</p>

Council/Committee	Date of meeting	Paper
Panel on Development	27 July 2010	Administration's paper on green buildings and building design to foster a quality and sustainable built environment (LC Paper No. CB(1)2601/09-10(01)) http://www.legco.gov.hk/yr09-10/english/panels/dev/papers/dev0727cb1-2601-1-e.pdf Minutes of meeting (LC Paper No. CB(1)3022/09-10) http://www.legco.gov.hk/yr09-10/english/panels/dev/minutes/dev20100727.pdf
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