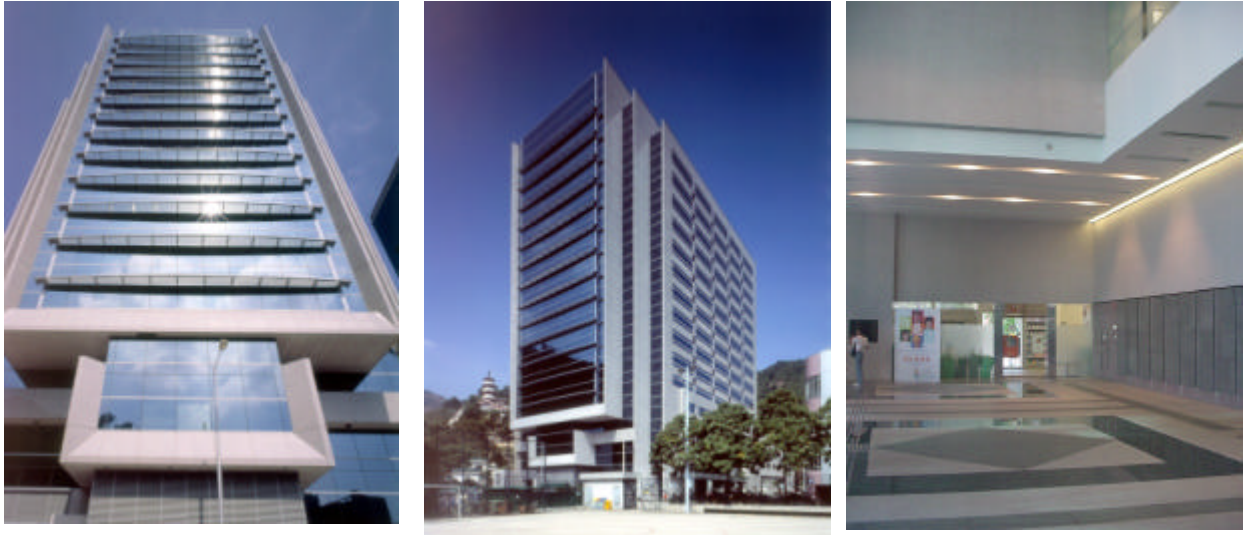


## SHATIN GOVERNMENT OFFICES – A PURPOSLY DESIGNED OFFICE BUILDING WITH ENVIRONMENTAL AND ENERGY EFFICIENCY CONSIDERATIONS



Shatin Government Offices occupies a total gross floor area of approximately 33,800 m<sup>2</sup>, with the three basement levels designated for car parks, above which the single tower building houses 16 storeys of office accommodations. The superstructure construction of the premises commenced in July 1999 and was completed in November 2001.

This joint user government offices building is a design and build project, with Hong Kong Construction Holding Ltd, responsible for project management and construction of the premises, supervised by the Architectural Services Department (Arch SD).

Many sustainable environmental features are applied to the building and the Shatin Government Offices finally achieved the highest HK-BEAM rating of *Excellent*. One major environmental consideration is the façade design which will be described as below.



The HK-BEAM Society is the non-profit and membership-based organisation that aims and operates, on a self-financing basis, the Hong Kong Building Environmental Assessment Method (HK-BEAM).

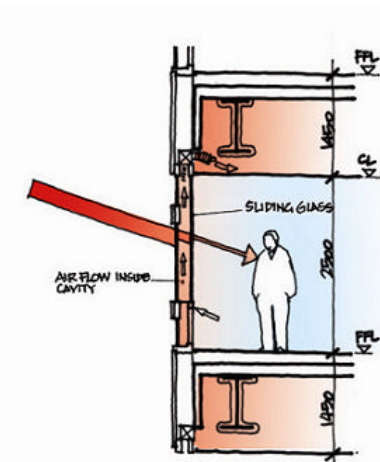
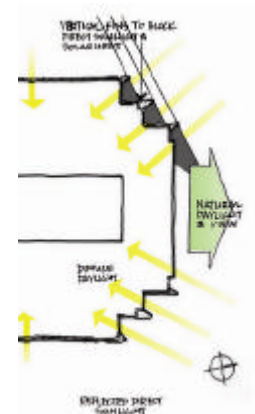
For more information visit [www.hk-beam.org](http://www.hk-beam.org)

### “Façade Design”

The envelope of the building is purpose designed to reduce solar heat gains and maximize daylighting penetration in the premises.

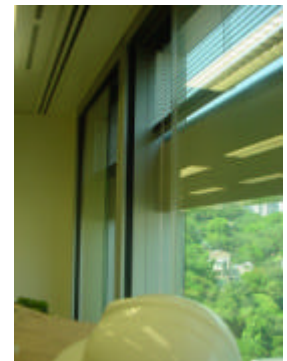
On north side where minimum direct solar load is to be suffered, normal single glazed curtain wall system is applied. The drawing on the left side indicates the design of Vertical fins on the two edges of the building.

The concrete fins are purposely designed to block the direct sunlight from entering the building. Such installation is also erected on the south side façade.



On east and west sides, double glazed curtain walling system with fenestrations of less than 50% are erected. The heat built up in capacity is extracted mechanically at the top of the window.

Such design minimizes the cooling load requirement where solar heat gain is reduced. Consequently, the thermal comfort is enhanced.





For south side, in addition to the vertical concrete fins, horizontal shading devices are also erected.

Plus the double glazing heat return system applied, the overall OTTV as well as the energy consumption by air-conditionings system are comparatively lower than other traditionally designed buildings.

