

Shortlisted Design of Professional Group 專業組入圍作品



Key Features

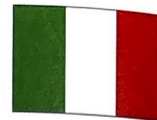
- Ideas - Gentle wavy shaped roof to establish a new iconic landmark for Hong Kong
- Use of wind turbine to generate electricity
- Shading to reduce solar gain and unwanted sunlight
- Thin film solar panel supply hot water and energy
- Seawater cooling in air conditioning to reduce energy use
- Rainwater and greywater collection for irrigation

特點

- 設計概念 - 蜿蜒起伏的線條覆蓋於建築物屋頂，以柔順的線條塑造香港新地標
- 採用風力渦輪發電
- 遮陽板能散熱及減低日照
- 薄膜太陽能光伏板可發電及用於熱水供應系統
- 海水製冷空調系統能節約能源
- 收集雨水及污水用作灌溉

Harmony between Space and Nature 自然與空間

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Design Statement:

Wind and water are the natural elements which are universal energy forces generating the form of the design proposal. The Passenger Clearance Building (PCB) and the pedestrian bridges are merged into harmony to form a softly wavy shaped roof. It creates a new iconic landmark for Hong Kong. The iconic roof is composed of 20 steel ribbons alternated to 6 glass ribbons each 8.8m in width. The wavy ribbons are extended beyond the glass façade of the PCB to cover the lay-by and shelter all inbound and outbound passengers.

After the first energy idea and resources concept is defined, an envelope building concept is developed with an idea of integration of renewable energy sources like ambient air, wind, solar energy and seawater sources in the main building. By installation of wind turbines, integration of photovoltaic solar panels on the roof structure and using seawater in the air-conditioning system makes the building from an energetic point of view to be almost independent.

設計意念說明：

風與水既是自然界的要素，亦是推動萬物運行的力量之源，也構成本設計方案的重心，化身為許多蜿蜒起伏的線條覆蓋建築物屋頂，把旅檢大樓和行人天橋融連為一體，以柔順的線條塑造香港新地標。旅檢大樓的設計極具型格，以8.8米寬的20枝鋼結構絲帶連接同樣寬度的6條玻璃結構絲帶，伸越大樓玻璃幕牆，覆蓋公共運輸上落客區方便出入境旅客。

當設計定下運用天然資源與能源為概念後，便以建築物的外觀表達這概念，更在其中的能源與水源設施上結合環保概念，引入再生能源科技如利用環境空氣、風力、太陽能以及海水等，因此建築物配備多項環保設施，包括風力渦輪、太陽能光伏板及海水製冷空調系統，讓大樓在能源方面能完全做到自給自足。



GENERAL DAY VIEW OF ROOF - 鸟瞰图



ROOF DESIGN CONCEPT - 屋顶设计概念

